

# Army Lodging Wellness Recommendation

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## Fort Hood - Final Submittal

August 4, 2003

**3D/I**

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## Introduction

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# Section 1 Wellness Recommendation

The Army Lodging Wellness Program is conducted under the direction and guidance of Headquarters Army, Lodging Division (CFSC). The goal of the Fort Hood Lodging Wellness Plan is to provide a comprehensive assessment and planning tool to support long term capitalization of Army Lodging facilities. The Demand Analysis determines installation Lodging requirements, and reviews off-post Lodging availability and cost, arriving at the most economical solution for meeting total transient requirements and providing a final determination of the appropriate number and configuration of on-post Lodging rooms. Individual Lodging facility condition (building and building systems) and functional assessments are included with both recommendations and costs. Facility improvement and renovation versus replacement/new construction recommendations are developed based on the individual facility assessments and cost. A Lodging Master Plan for the installation is developed including renovation, replacement/new construction, and proposed new facility siting. A final recommendation defines the method for achieving the final wellness solution for the installation and will assist with project planning.

## Methodology

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### ***Demand***

- Demand for Lodging facilities is analyzed and adjusted for atypical past occurrences and for expected changes in the installation's population, housing, or mission. Two primary methods are used to calculate the optimum number of rooms: the number necessary to meet 80% of official demand and the number projected to be the most efficient from an operating cost perspective.
- The off-post private market is assessed for capacity and representative rates. A determination is made if the private market has the capability to handle overflow requirements of official demand.
- Room mix recommendation is based on the segmentation of the Permanent Change of Station (PCS)/Temporary Duty (TDY) mix and the expected lengths of stay. This produces the final determination of the appropriate number and configuration of rooms for the installation.

### ***Assessment***

- Existing Lodging facilities are assessed based on building and building system conditions followed by an assessment for conformance to the Army Lodging functional standards. Facilities

assessed to be in fair to good condition, and meeting the majority of functional requirements, are considered for renovation. Renovation of Lodging facilities found in poor condition and configured significantly different than current standards will typically exceed 50% of the replacement costs and are recommended for replacement/new construction. This decision is supported by renovation cost comparisons as well as the assessment documentation.

- The age, condition, and existing configuration of most of the existing Lodging **buildings** support a finding of replacement through new construction in lieu of renovation.
- Force protection construction criteria has a significant impact on new construction. This Wellness recommendation, including building assessment, site analysis, and proposed Lodging construction, incorporates these requirements from the UFC 4-010-01 in our analysis and recommendations. Consistent with this guidance, force protection mitigation is not considered in renovation unless the renovation cost exceeds 50% of the replacement cost for a facility.

## Demand Summary

Based on the demand pattern at this facility and the anticipated future demand growth, we recommend that the number of rooms provided be sized using the “80% of Official Demand” criterion. While the “Most Economically Efficient” criterion suggests fewer rooms, the surge requirements during training exercises and some concerns regarding the room supply in the local market, suggest a higher number of rooms is required.

### ***Demand Analysis Room Count and Mix Recommendation***

- 432 rooms
- Proposed room mix:
  - 133 standard guest rooms;
  - 153 extended-stay guest rooms offering a kitchenette;
  - 146 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette.

The demand analysis has determined a need of 432 rooms; however, based on existing and proposed building configurations the actual number recommended for the Fort Hood Wellness Plan **is presented at** 434 rooms.

## Lodging Summary

The following Lodging for Fort Hood is summarized by building, including number of existing rooms and number of proposed rooms determined as part of the installation Wellness recommendation. The table also indicates the number of rooms required for a new Lodging facility based on buildings not proposed for re-use due to poor existing conditions and high renovation costs. The number of rooms for the New Proposed Lodging Facility reflects the proposed layout and does not match the exact Demand numbers, because of building configuration.

Building Number	Existing Rooms					Wellness Recommendation (FY 08)			
	Total Rooms	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf	Other Rooms	Total Rooms	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf
<b>Wellness Recommendation based on Demand Analysis</b>									
						432	133	153	146
<b>Existing Lodging Facilities</b>									
111	75	75				75	75		
5786	29			2	27	0			
5788	29			1	28	0			
5790	30			2	28	0			
5792	30			2	28	0			
6827	1				1	0			
6829	1				1	0			
36006	274	208		62	4	273	58	153	62
<b>Totals</b>	<b>469</b>	<b>283</b>	<b>0</b>	<b>69</b>	<b>117</b>	<b>348</b>	<b>133</b>	<b>153</b>	<b>62</b>
<b>New Proposed Lodging Facility</b>									
						86			86
<b>Total Lodging Rooms</b>									
						434	133	153	148

### Summary of Room Count and Mix based on Configuration

- 434 rooms
  - 133 standard guest rooms;
  - 153 extended-stay guest rooms offering a kitchenette;
  - 148 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette.

## Cost Summary

### Project Cost

The following table summarizes the Condition Analysis, Renovation, and Replacement Cost by individual Lodging facility. The Wellness Recommendation indicates cost by building based on recommendation, including the proposed facility cost.

Building Number	Existing Rooms					Wellness Recommendation (FY 08)			
	Total Rooms	Condition Analysis Cost*	Renovation Cost**	Replacement Cost	% Condition Analysis or Renovation Cost Ratio	Total Rooms	Total Cost	Renovation Cost	New Construction Cost
<b>Existing Lodging Facilities</b>									
111	75	\$ 1,503,685	*** **	\$ 5,485,330	27.41%	75		\$ 1,503,685	
5786	29	\$ 1,686,140	****	\$ 3,240,695	52.03%	0			
5788	29	\$ 1,686,140	****	\$ 3,240,695	52.03%	0			
5790	30	\$ 1,694,565	****	\$ 3,240,695	52.29%	0			
5792	30	\$ 1,694,565	****	\$ 3,240,695	52.29%	0			
6827	1	***		\$ 141,545	88.31%	0			
6829	1	***		\$ 141,545	88.31%	0			
36006	274	*****		\$ 3,157,965	12.34%	273		\$ 3,157,965	
<b>Totals</b>	<b>469</b>					<b>348</b>	<b>\$ 4,661,650</b>	<b>\$ 4,661,650</b>	<b>\$ -</b>
<b>New Proposed Lodging Facility</b>									
						86	\$ 9,041,385		\$ 9,041,385
<b>Total</b>									
						<b>434</b>	<b>\$ 13,703,035</b>	<b>\$ 4,661,650</b>	<b>\$ 9,041,385</b>

- \* The Condition Analysis Cost is for making the building well based on Army Lodging Standards without changing how the building functions.
- \*\* The Renovation Cost is for making the building well based on Army Lodging Standards including making functional changes.
- \*\*\* If the Condition Analysis Cost is under 50% of the Replacement Cost, the Renovation Cost is used.
- \*\*\*\* If the Condition Analysis Cost is over 50% of the Replacement Cost, a Renovation Cost is not included.
- \*\*\*\*\* Condition Assessment Cost and Renovation Cost to renovate based on Army Lodging Standards are indicated in the Renovation Cost
- \*\*\*\*\* Renovation Costs have been included in the Condition Assessment cost and are under 50%. No Renovation Cost is used for this building.

### Cost per Room Comparison

The Wellness Recommendation includes review of off-post Lodging costs to the proposed renovation and new construction costs. The renovation and new construction costs include operating costs, capital assessment costs, and sustainment capital expenditures. The following table summarizes this comparison per room for FY08.

	Renovation	New Building	Total
Cost per Room at Fort Hood	\$ 47.73	\$ 58.90	\$ 49.94
Off Post Cost per Room	\$ 60.19	\$ 60.19	\$ 60.19
Difference between On-Post and Off-Post Lodging per room	\$ 12.46	\$ 1.29	\$ 10.25
% Savings of On-Post to Off-Post Lodging	20.7%	2.1%	17.0%

The Cost Per Room at Fort Hood is based on:  
 Renovation / New Construction Cost w/ inflation to FY 08  
 Current Operating Cost w/ inflation to FY 08  
 Cap Ex Cost  
 Capital Assessment Cost to FY 08  
 Off Post Cost is based on current room rate average with inflation to FY 08

Due to this cost difference and the savings of 17.0% it is our recommendation that the Army construct a new Lodging facility and retain two existing facilities at Fort Hood in lieu of using off-post lodging to support the determined demand requirement. Off-post lodging will continue to be used for demand beyond the on-post room requirement.

## Recommendations / Conclusions

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The Wellness Recommendation for Fort Hood is to continue the use of Keith Ware Hall, building 36006 with 274 rooms and Poxon House, building 111 with 75 rooms, and to construct a new Lodging facility with 86 rooms, for a total of 434 rooms on post, to meet the 432 room requirement. The number of rooms reflects existing and proposed building layouts and does not match the exact demand numbers because of building configurations. Keith Ware Hall will continue to serve as the primary Lodging office, and include all main Lodging public and back-of-house spaces based on Army Lodging standards. Existing Lodging facilities that do not meet condition and functional requirements based on cost shall be removed from the Lodging inventory. A synopsis of recommended building actions follows:

- Building 36006, Keith Ware Hall will continue to be used as the primary lodging facility. The building currently has 274 rooms that generally meet Army Standards plus four 4-room suites which we recommend be converted to public and back-of-the-house spaces to meet the Army Lodging criteria for those spaces. In consolidating the back-of-the-house spaces to one area, 3 rooms will be converted back to guest rooms.
- Building 111, Poxon House, will continue to be used and house 75 single standard rooms.
- A new building will be constructed to include 86 family rooms.
- All other existing on-post Lodging buildings will be removed from the Lodging inventory due to the condition of existing building systems and/or the cost to renovate to meet Army functional criteria.

### **Cost Summary**

The cost for this recommendation will be:

Renovation of building 111	\$ 1,503,685
Renovation of building 36006	\$ 3,157,965
New Lodging Facility	\$ 9,041,385
<b>Total</b>	<b>\$13,703,035</b>

### **Phasing**

Recommend the following phasing as funding is identified.

- Minimize investment in infrastructure for buildings 5736, 5788, 5790, 5792, 6827, and 6829.
- Construct new Lodging facility prior to removing existing Lodging facilities from inventory.

- Renovate building Keith Ware Hall, building 36006, guest rooms and back-of-house and public spaces.
- Make condition assessment improvements and renovation required to meet Army Lodging standards to the Poxon House, building 111.
- Remove buildings 5736, 5788, 5790, 5792, 6827, and 6829 from Lodging inventory.



# Section 2 Lodging Master Plan

Fort Hood, Texas, located in central Texas, is a 339 square mile installation surrounded by rolling hills, lakes, and an abundance of wildlife. The installation is approximately 60 miles north of Austin and 50 miles south of Waco. The city of Killeen borders Fort Hood to the east and Copperas Cove borders Fort Hood to the west.

Fort Hood is the largest active duty armored installation in the United States, and is the only installation in the United States that is capable of supporting two full armored divisions. In addition to the 1st Cavalry Division and the 4th Infantry Division, Fort Hood is also home to the Headquarters Command III Corps, 3d Personnel Group, 3d Signal Brigade, 13th Corps Support Command (COSCOM), 13th Finance Group, 89th Military Police Brigade, 504th Military Intelligence Brigade, the 21st Cavalry Brigade (Air Combat), the Dental Activity (DENTAC), the Medical Support Activity (MEDDAC), Army Operational Test Command (AOTC) formerly TEXCOM, and various other units and tenant organizations.

Although a current installation design guide is not available, planning efforts are underway at Fort Hood for the development of a “Main Street” district in between 761<sup>st</sup> Tank Battalion Avenue and Battalion Avenue near the III Corps headquarters building. This area is envisioned to be a cultural and community center for the installation, modeled after the Main streets of historic Texas towns, and will be enhanced through the use of native materials and finishes. Once complete, this plan will exemplify the desired architecture of the installation.

Current Lodging room night requirements, Army guidance on Lodging facility design standards, and force protection construction standards required additional analyses, and were incorporated into the recommendations of this Lodging Wellness Plan.

## Master Plan Summary

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Lodging facilities at Fort Hood were constructed in various phases and are located in several areas of the installation. A thorough condition and functional assessment of the existing buildings noted significant deficiencies. Additionally, renovation of **several of** these buildings to the

new Army Lodging standards and building configuration design is not viable within the 50% threshold.

The proposed Fort Hood Lodging Master Plan reflects a 434 Lodging room requirement on the installation through replacement of deficient facilities. The number of rooms reflects existing and proposed building layouts and does not match the exact demand numbers, because of building configurations. Keith Ware Hall, building 36006, and Poxon House, building 111, will continue to be used in this master plan, with renovation of existing lodging rooms where required and renovation of public areas and back-of-the-house spaces. The new lodging facility will be constructed with 86 rooms and is proposed to exclusively consist of family suites. Keith Ware Hall will continue to serve as the primary Lodging office.

## Existing Lodging Facilities

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### ***Lodging Building 111***

Building 111, Poxon House, constructed in 1972, is located near the main gate along Fort Hood Road, in close proximity to Keith Ware Hall. This facility houses 75 standard rooms, approximately 305 square feet each, and meets Army Lodging size requirements. It is recommended that Poxon House continue to serve as part of Fort Hood's lodging inventory.



### ***Lodging Buildings 5786, 5788, 5790, & 5792***

The 5700 series lodging buildings were built in the late 1950's and consists of 111 family suites and 7 standard rooms. At approximately 520 square feet per suite, these rooms are somewhat larger than current Army Lodging standards. Many of these buildings' systems are nearing the end of their useful lives and are in poor condition as noted in the Facility Assessment. The cost to make condition assessment improvements will exceed the 50% replacement cost.



Our recommendation is to remove these buildings from the Lodging inventory, allowing the installation to determine an alternate use for the facilities. These facilities will be removed from the Fort Hood Wellness Solution and Lodging master plan.



### ***Lodging Buildings 6827 & 6829***

Buildings 6827 and 6829, Hood House and Patton House, were initially designed as single family residences. Constructed in the late 1960's, these facilities are currently used as DVQ suites. These facilities are in excellent condition and are immaculately landscaped. These facilities do not meet current Army Lodging standards and the cost to make improvements and to bring up to Army Lodging standards will exceed the 50% replacement cost.

Our recommendation is to remove these buildings from the Lodging inventory, allowing the installation to determine an alternate use for the facilities. These facilities will be removed from the Fort Hood Wellness Solution and Lodging master plan.



### ***Lodging Building 36006***

Building 36006, Keith Ware Hall, is located near the main entry gate and serves as the primary Lodging office for the installation. Built in 1968, and having recently gone through a 5 million dollar renovation, this facility is in excellent condition. The facility currently houses 208 single units with kitchenettes which meet current lodging standards, and 62 family suites which exceed lodging standard square footage requirements. In addition, there are four 4 room suites in the north wing which far exceed Army Lodging amenity and square footage standards. **The existing public and back-of-house spaces do not meet Army Lodging standards, and do not include in-house-laundry capabilities.**

Our recommendation for this facility is to convert the four 4-bedroom suites into additional back-of-the-house spaces and public spaces, and revert existing administrative and back-of the house spaces back to 3 guest rooms. Converting the 62 existing family suites to lodging standards would provide minimal benefit at considerable cost. Therefore, it is recommended that these rooms remain as they are.

### ***Areas and Occupancy***

The following chart indicates all spaces and size based on the Army Lodging standard program for the existing building and renovations. A synopsis of the changes are:

- Add back-of-house spaces that do not exist including in-house laundry, break room, staff toilet rooms, receiving, access corridor, bulk storage, administrative conference room, breakfast prep, and gear wash rooms.
- Consolidate general storage into one space.

- Move maintenance area to increase size and to consolidate with other back-of house functions.
- Move housekeeping office near new in-house laundry.
- Add housekeeping rooms to increase amount required to meet standard. Storage closets on each floor were used and storage was moved to general storage on first floor.
- Add public spaces that do not exist including breakfast area, multipurpose room, bell cart storage, guest bulk storage, and public phones.
- Increase vending area.
- Corridors were kept at 5' wide. It is felt this deficit is not critical to the intent of the standard and is not included in the renovation.

ROOM / SPACE	PROGRAMMED FLOOR AREA			EXISTING PLAN FLOOR AREA	RENOVATION PLAN FLOOR AREA
	No. Req'd	Net Area Per Room	Total Net Area		
Public Areas					
Exterior Entrance	N/A	N/A			-
Vestibule	1	1	-		-
Lobby (includes vestibule)	1	1,000-1,200	1,000-1,200	1,180	1,180
Front Desk	3 stations	250	250	582	582
Bell Cart Station	6	12	72	-	57
Breakfast Bar (Seat/Svc) - min.	1	750	750	-	643
Passenger Elevators	*	*	*	*	*
Stairs	*	*	*	*	*
Public Corridors	*	*	*	*	*
Public Telephone Area	4	6	24		59
Vending - Full Service	3	70	210	150	475
Vending - Ice Only	3	30	90	20	62
Women - Lobby	1	315	315	355	306
Men - Lobby	1	315	315	217	217
Multi-Purpose Room - (250 s.f. min.)	1	250	250	-	250
Study Rooms (1 per 25 ext stay units)	-	250	-	-	-
Guest Laundries (2 sets w/d per 75 units)	4	192	768	680	680
Gear Wash Rooms -(170 s.f. min.)	1	170	170		466
Guest Bulk Storage (1 per 4 family suites)	16	25 ea. 40 w/circ.	640		556
Guest Rooms	273		91,200		91,200
Guest Room - Standard	58	300	17,400		17,400
Guest Room - Ext. Stay	153	300	45,900		45,900
Guest Room - Family Suites	62	450	27,900		27,900

ROOM / SPACE	PROGRAMMED FLOOR AREA			EXISTING PLAN FLOOR AREA	RENOVATION PLAN FLOOR AREA
	No. Req'd	Net Area Per Room	Total Net Area		
<b>Back-of-House Areas</b>			<b>8,202</b>		<b>9,827</b>
Manager's Office	1	180	180	241	217
Assistant Manager Offices	1	120	120		122
Front Office Manager	1	100	100		-
Admin. Offices	7 staff	800-900	800-900	1,460	1,211
Cash Room	1	125	125	97	97
Luggage Storage	1	100	100	100	100
Admin. Conference Room	1	350	350		240
Housekeeping Office	1	120	120	278	121
Dirty/Clean Linen Storage	-	200	-		-
In-House Laundry - (500 s.f. minimum)	1	750	750		728
Receiving Office	1	75	75		77
Maintenance Area	1	400	400	556	254
Kitchen Prep Room	1	150	150		149
Break Room	1	350	350	287	324
Staff Toilet - Men	1	150	150		100
Staff Toilet - Women	1	200	200		100
Access Corridor	-	-		-	1,543
Receiving -min.	1	150	150		340
Housekeeping Rooms	1 per 15 units	128	2,432	500	2,047
Service Elevator	*	*	*	*	*
Data/Commo Room	*	*	*	*	*
Switch Closets	*	*	*	*	*
Janitor Closet	1	50	50		-
Mechanical Room	*	*	*	*	*
General Storage Room - (500 s.f. min.)	1	750	750	1,110	1,217
Bulk Storage Room - (500 s.f. min.)	1	750	750		840
Electrical Room	*	*	*	*	*
Elevator Equipment Room	*	*	*	*	*
<b>Exterior</b>			<b>400</b>		
Playground (Outdoor)	1	-	-		-
Grounds Maintenance	1	400	400		-

\* Square footage part of building infrastructure and is not calculated

## New Lodging Building

The proposed Lodging facility includes 86 family suites. Although a few required public and back-of-house spaces will be included in this new facility, Keith Ware Hall will continue to serve as the primary Lodging office and shall provide the majority of the public area and back-of-house support services.

The proposed site for this facility is located on Battalion Avenue within the proposed Main Street District, approximately 1 mile from Keith Ware Hall. This site will provide close proximity to the cultural and community services planned in this area. In addition, this site will allow the new lodging facility to share several of its administrative and back-of-house functions with Keith Ware Hall.

The proposed building construction is steel frame with CMU and glass curtain walls, sloped tile roof, and a brick exterior veneer. The architectural guidance for Fort Hood is incorporated into the cost of the new facility.

The mass and scale of the proposed building is critical. Based on the number of required rooms and to limit the length of the wings, the recommendation of this plan is to provide 3-story building height, with two wings. The entrance will be emphasized by a single story height covered drop-off area, and a play area adjacent to the family suites is recommended.

### ***Areas and Occupancy***

The following chart indicates all spaces and size based on program and the proposed conceptual building plan for the first phase only.

ROOM / SPACE	PROGRAMMED FLOOR AREA			PLAN FLOOR AREA
	No. Req'd	Net Area Per Room	Total Net Area	
<b>Total Area including 9% Add On Factor</b> (does not include Outside Areas)*			<b>62,326</b>	<b>62,706</b>
<b>Public Areas</b>			<b>14,960</b>	<b>14,570</b>
Exterior Entrance	N/A	N/A		-
Vestibule	1	150	150	150
Lobby (includes vestibule)	-	500-800	-	787
Front Desk			-	-
Bell Cart Station	3	12	36	79
Breakfast Bar (Seat/Svc) - min.	-	550	-	-
Passenger Elevators	1 elev. @ 3 floors	64	192	192
Stairs	3	230	2,070	1,569
Public Corridors	-	-	10,500	10,232
Public Telephone Area	2	6	12	12
Vending - Full Service	1	70	70	234
Vending - Ice Only	1	30	30	56
Women - Lobby	-	200	-	-
Men - Lobby	-	200	-	-
Multi-Purpose Room - (250 s.f. min.)	-	250	-	-
Study Rooms - (1 per 25 ext stay units)	-	250	-	-
Guest Laundries - (2 sets w/d per 75 units)	1		220	223
Gear Wash Rooms - (170 s.f. min.)	-	170	-	177
Guest Bulk Storage - (1 per 4 family suites)	22	25 ea. 40 w/circ.	880	859
<b>Guest Rooms</b>	<b>86</b>		<b>38,700</b>	<b>38,700</b>
Guest Room - Standard		300	-	-
Guest Room - Ext. Stay		300	-	-
Guest Room - Family Suites	86	450	38,700	38,700

ROOM / SPACE	PROGRAMMED FLOOR AREA			PLAN FLOOR AREA
	No. Req'd	Net Area Per Room	Total Net Area	
<b>Back-of-House Areas</b>			<b>3,520</b>	<b>3,659</b>
Manager's Office	-	180	-	-
Assistant Manager Offices	-	120	-	-
Front Office Manager	-	100	-	-
Admin. Offices	-	200-250	-	-
Cash Room	-	75	-	-
Luggage Storage	-	50	-	-
Admin. Conference Room	-	250	-	-
Housekeeping Office	-	120	-	-
Dirty/Clean Linen Storage	1	50	50	102
In-House Laundry - (500 s.f. minimum)	-	500	-	-
Receiving Office	-	75	-	-
Maintenance Area	-	175	-	-
Kitchen Prep Room	-	150	-	-
Break Room	1	140	140	201
Staff Toilet - Men	1	100	100	75
Staff Toilet - Women	1	100	100	75
Access Corridor	-	-	1,000	936
Receiving -min.	-	150	-	-
Housekeeping Rooms	1 per 15 units	128	768	631
Service Elevator	1	80	240	246
Data/Commo Room	1	100	100	73
Switch Closets	2	16	32	426
Janitor Closet	-	50	-	-
Mechanical Room	-	-	516	516
General Storage Room - (500 s.f. min.)	-	500	-	164
Bulk Storage Room - (500 s.f. min.)	-	500	-	-
Electrical Room	1	140	140	141
Elevator Equipment Room	1	84	84	73
<b>Exterior</b>			<b>-</b>	
Playground (Outdoor)	1	-	-	-
Grounds Maintenance		400	-	-

\* Add on factor to cover s.f. for partitions and any space not included in numbers above.

### Cost Summary

The New Construction Cost

**\$9,041,385**

- The cost is for a building of 86 rooms.
- All costs are adjusted by the Area Cost Factor of 85% for Fort Hood.

### Cost Analysis

**Summary of Project Replacement Cost (based on 62,706 s.f.)**

CSI	Percent	Amount
<b>02 Site Work</b>	<b>2.97%</b>	<b>\$181,633.53</b>
Parking Lots		\$61,370.00
Site Earthwork		\$120,263.53
<b>03 Concrete</b>	<b>20.60%</b>	<b>\$1,258,029.44</b>
Floor Construction		\$864,402.94
Slab on Grade		\$89,037.50
Stair Construction		\$37,485.00
Standard Foundations		\$267,104.00
<b>04 Masonry</b>	<b>4.59%</b>	<b>\$280,330.76</b>
Exterior Walls		\$280,330.76
<b>07 Thermal &amp; Moisture Protection</b>	<b>6.15%</b>	<b>\$375,303.92</b>
Roof Construction		\$156,646.87

Roof Coverings		\$218,657.05
<b>08 Doors &amp; Windows</b>	<b>7.11%</b>	<b>\$434,238.65</b>
Exterior Doors		\$11,462.25
Exterior Windows		\$306,000.00
Interior Doors		\$116,776.40
<b>09 Finishes</b>	<b>15.02%</b>	<b>\$917,297.70</b>
Ceiling Finishes		\$136,273.21
Floor Finishes		\$260,650.05
Partitions		\$278,564.85
Wall Finishes		\$241,809.60
<b>10 Specialties</b>	<b>0.05%</b>	<b>\$2,881.08</b>
Fittings		\$2,881.08
<b>11 Equipment</b>	<b>2.39%</b>	<b>\$146,200.00</b>
Other Equipment		\$146,200.00
<b>13 Special Construction</b>	<b>5.27%</b>	<b>\$321,593.22</b>
Communications & Security		\$144,770.37
Sprinklers		\$176,822.85
<b>14 Conveying Systems</b>	<b>2.99%</b>	<b>\$182,580.00</b>
Elevators and Lifts		\$182,580.00
<b>15 Mechanical</b>	<b>18.68%</b>	<b>\$1,140,692.04</b>
Cooling Generating Systems		\$623,954.94
Domestic Water Dist		\$87,720.00
Plumbing Fixtures		\$429,017.10
<b>16 Electrical</b>	<b>7.14%</b>	<b>\$436,159.65</b>
Electrical Service & Distribution		\$432,428.15
Site Lighting		\$3,731.50
<b>19 FF&amp;E</b>	<b>7.04%</b>	<b>\$430,000.00</b>
Interior FF&E allowance		\$430,000.00
Total Raw Cost	100.00%	\$6,106,939.99
<b>Additional Hard Cost (Template: Army Lodging New Construction)</b>		
<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Spirit	0.50%	\$33,588.17
Force Protection	0.00%	\$0.00
General Conditions	10.00%	\$610,694.00
<b>Total Additional Hard Cost</b>		<b>\$644,282.17</b>
<b>Soft Cost (Template: Army Lodging New Construction)</b>		
<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$337,561.11
SIOH Conus	6.50%	\$460,770.91
Design	10.00%	\$675,122.22
08 MYr Inflation Fct	9.93%	\$816,710.37
<b>Total Soft Cost</b>		<b>\$2,290,164.60</b>
<b>Total Project Cost for Replacement</b>		<b>\$9,041,386.76</b>



**INSERT PROPOSED CAMPUS AREA ANALYSIS DRAWING HERE**

**INSERT LODGING MASTER PLAN DRAWING HERE**

INSERT **PROPOSED LODGING FACILITY (FLRS. 1-3)** DRAWINGS HERE

### Section 3 Demand Analysis

Fort Hood is a 340-square mile installation that is the residence for two armored divisions: the Nation's Counteroffensive Force and III Corps. Their mission is to train, mobilize, deploy and sustain heavy forces.

The training mission of the installation is the primary driver for the utilization of the installation's lodging facilities. Many training exercises on post last one to three weeks; some last up to 6 months. Therefore, most of Fort Hood's lodging demand is from personnel staying longer than 14 days.

During the last five years, the population at Fort Hood increased approximately 1.6%. There was little fluctuation within that time and most of the growth appears to have occurred in a segment that did not correspond to an increase in lodging demand. Total population is returning to the 1998 level and it is expected to remain stable with only a very slight increase in 2004 and 2005.

Official demand at Fort Hood is evenly split between personnel on temporary assignment and personnel changing stations. Unofficial travelers represent less than 10% of the demand for lodging on this installation. While unofficial demand can fill down time at the installation, it is not calculated in the total room demand or room mix recommendation.

The average length of stay for Temporary Duty (TDY) personnel staying less than 14 days is 3.4 days. The majority of TDY personnel stay longer: an average of 35.6 days. The majority (72.9%) Permanent Change of Station (PCS) **occupants** stay an average of 75.5 days.

The table on the following page summarizes the official demand segments at Fort Hood.

Fort Hood Official Market Demand Analysis		
	TDY	PCS
% of Total On-Base Official Demand	43.4%	47.0%
Individuals	100%	< 10%
Families	0%	> 90%
14 day length of stay or less	46.5% (3.4 days)	27.1% (5.1 days)
More than 14 days	53.5% (35.6 days)	72.9% (75.5 days)

Source: Fort Hood Lodging Administration, compiled by 3D/I.

## On-post Inventory

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Fort Hood Lodging offers 469 lodging units in eight buildings.

## Demand and Utilization

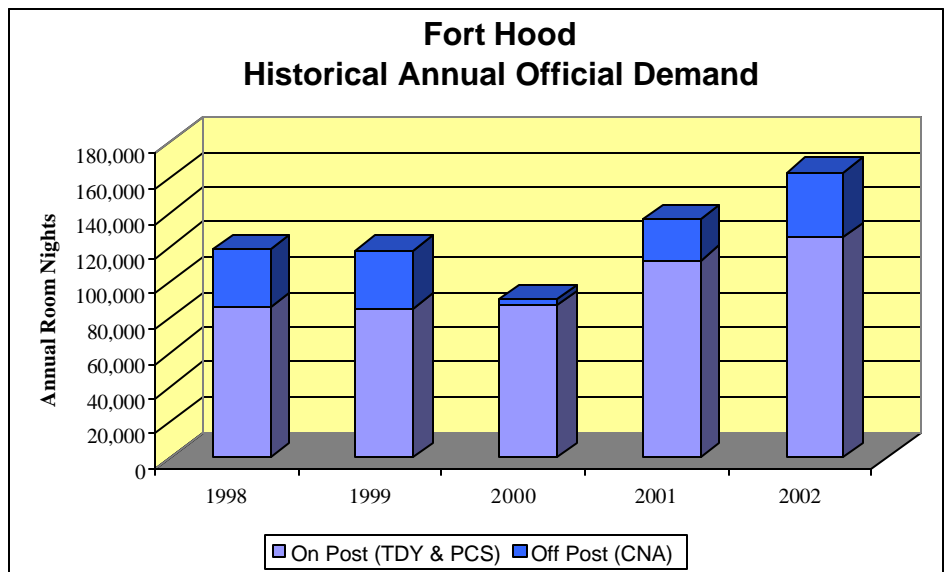
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### **Data Summary**

In the four years prior to 2002, demand inclusive of CNAs ranged from 248 to 372 room nights per day. In 2002, this demand increased to approximately 447 room nights per day. This may be a result of the general increase in the operations tempo that many installations experienced in 2002, and it is particularly likely for Fort Hood because of its mission.

Virtually all of the increase in demand in 2002 was accommodated off post. CNAs in prior years averaged 60 to 90 per day and in 2002, CNAs increased to an average of 102 room nights per day. It is estimated that the fiscal year 2002 increase will not be sustained.

A summary of historical data is presented in the following chart; it displays the annual official demand both on and off post.



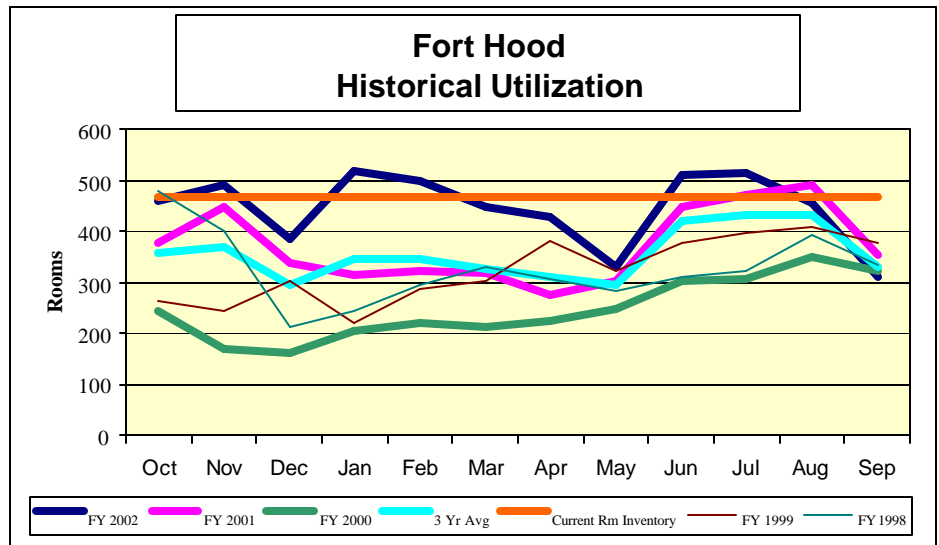
Source: Fort Hood Lodging Administration, compiled by 3D/I

While 2002's demand appears higher than normal, 2000's demand appears lower than normal. Lodging management attributes the 2000 decline to a reduced number of exercises that year. In every other year, CNAs exceeded 20,000 room nights and typically exceeded 30,000 room nights a year. Some CNAs in 1999 were due to rooms being out of service for renovation.

Lodging has achieved an annual average occupancy higher than 75% only once in the last five years. Discussions with management identified that the exercises held at Fort Hood run in duration from one to three weeks and involve large numbers of personnel. These exercises are not scheduled back-to-back; typically there is a week to three weeks between sessions. During the weeks that exercises occur, more personnel need lodging than can be accommodated, and they have to be accommodated off post. Once assigned off post, they stay there for the duration of the exercise.

During "off" weeks, lodging occupancy can drop to less than 50%. While unofficial demand does backfill the underutilized rooms by 13,000-15,000 room nights annually, it is not enough to raise the overall occupancy rate to a sustainable level over 75%.

The chart on the following page summarizes utilization at Fort Hood over the last five years.



Source: Fort Hood Lodging Administration, compiled by 3D/I.

### ***Factors Influencing Demand and Utilization***

As discussed earlier, total population is returning to the 1998 level and it is expected to remain stable there with only a very slight increase in 2004 and 2005. In the aggregate of the next five years, total population is forecast to decrease a total of 0.5%. This small change does not affect the recommended inventory number.

While Fort Hood's population remained relatively stable, demand fluctuated widely in the last five years. The three year average demand is approximately 130,000 room nights, which is slightly higher than the five year average of 125,000 room nights. Given the patterns of use that is driven by this installation's mission, the higher average is more likely to occur than the lower average. As such, the average official demand over the last three years is used as the basis for determining the required number of rooms.

Currently, there are no plans to increase or decrease the housing stock at Fort Hood. There are no anticipated changes in the installation's demographics or mission that would suggest any changes in future market segmentation.

There are also 6,212 family housing units on Fort Hood; 300 units are leased and 5,912 have been privatized.

## Private Market Capability

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The commercial lodging market within a 30-minute rush hour driving time radius of the installation is approximately 2,000 to 2,500 rooms. It is estimated that more than 75% of these rooms are located in properties represented by major lodging chains.

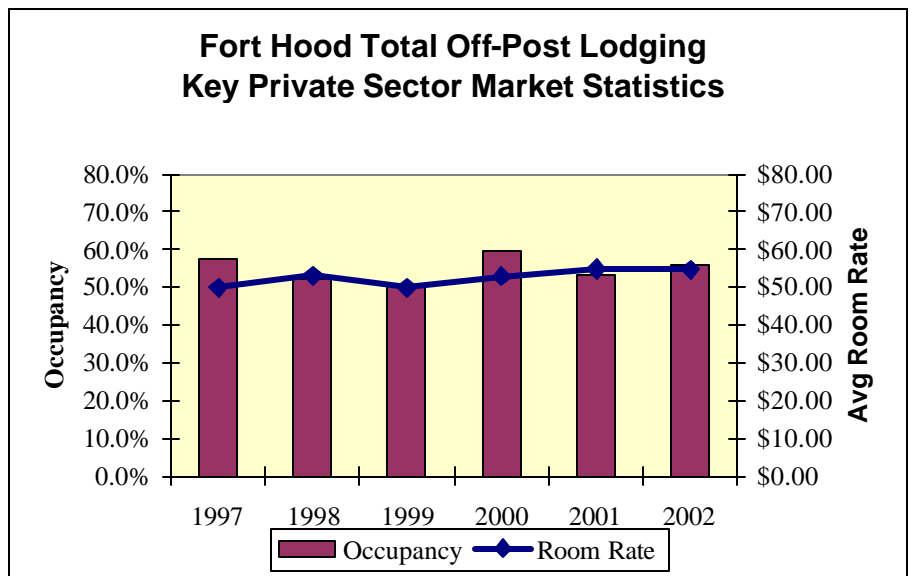
There are no other military Lodging operations within the 30-minute radius of the installation.

As shown in the following graph, the market is stable and—as a result of weak occupancy levels—there has neither been a significant increase in rates over the last five years nor much new construction in the area.

The data also does not show seasonal peaks that would negatively impact the ability of the installation to lodge personnel off post at government rates. The 2002 ADR approximates the average government rate charged to military personnel staying off post at \$54.75 per night. These rates are similar to the \$59 per diem rate for Fort Hood.

On average, it would appear that the market has sufficient capacity to support any overflow requirements that Lodging may encounter, but the timing of demand must also be considered. Fort Hood dominates the need for lodging in the immediate area; it is highest when the installation conducts training exercises and then it radically declines when the exercises end. This presents a concern about the local market's ability to handle additional demand if the installation were to significantly reduce the number of rooms on post. Intermittent demand of this type is not sufficient to cause the private sector to respond with new construction, and it is likely to raise room rates.





Source: Fort Hood Lodging Administration, compiled by 3D/I

In summary, it is reasonable to assume from the data that the private market does have sufficient capacity to support the overflow lodging requirements that Fort Hood personnel might encounter. While the market has capacity to accept demand for another 75 to 125 room nights, it will likely cause an increase in the rates charged in the area.

## Demand Requirement Determination

The Core Lodging Requirement is to provide sufficient lodging to meet 80% of the official demand. Using this criterion, the total number of rooms required on an annualized basis is 432, generating occupancy of 75%. This occupancy level assumes minimum occupancy on the weekends, demand periods between exercises of one to three weeks, and an expected occupancy of 90% to 95% when exercises are occurring.

Another way to determine the number of rooms to be provided at the installation is to apply the “Most Economically Efficient” criterion. This measure compares the cost of having a vacant room to the incremental cost of lodging personnel off post. When the costs of these scenarios are at equilibrium, the most cost efficient number of rooms will be provided from an operating cost perspective. The number of rooms required to achieve this equilibrium for the installation is 371 rooms. Expected occupancy would be 75% and 67% of the official demand would be met.

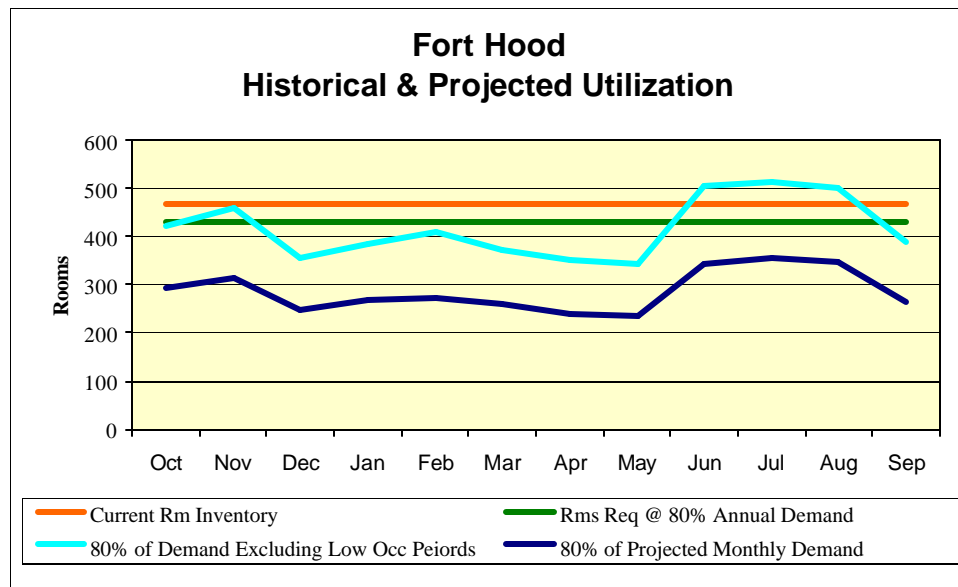
The projected Average Daily Rate at Fort Hood is expected to be **\$34.50 in FY 08**. The current per diem rate is \$59 and the estimated average cost per night for military personnel staying off post is \$54.75. If training exercises were to increase at the installation and more pressure was put

on the commercial market (which relies on military personnel), the average rate of \$54.75 would begin to increase. Because the private market is susceptible to any change in demand, the “Most Economically Efficient” number would also change quickly as market rates rise and fall.

While it is theoretically more cost efficient to build only 371 rooms, the “Most Economically Efficient” model does not fully account for the surges that take place when a training exercise occurs. As discussed in the assessment of the market, there is a concern that while the local market should be able to accommodate an additional 75 to 125 room nights, it will likely cause an increase in the rates charged in the area. If rates increase, the number of rooms that would be economically efficient to build on post would increase.

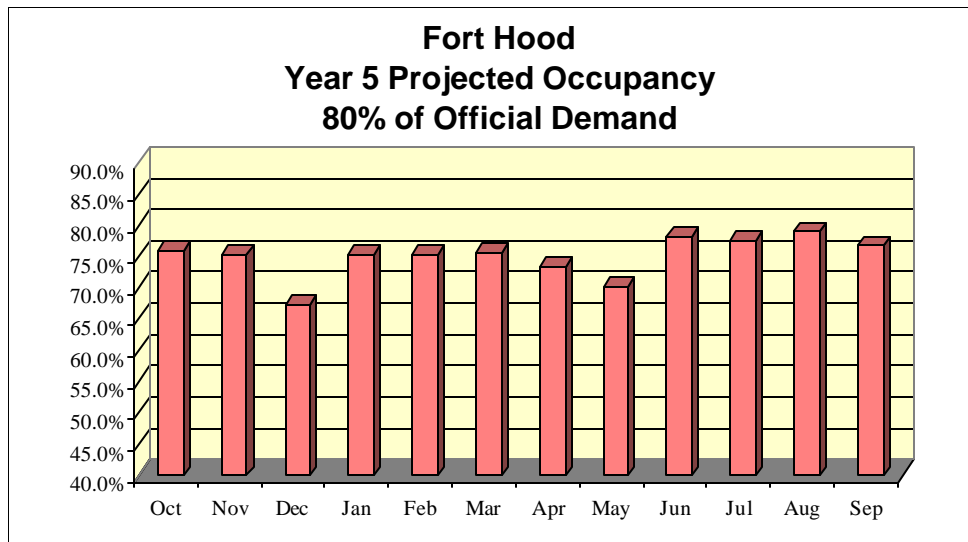
For these reasons, we recommend that Lodging provide enough rooms to meet the “80% of Official Demand” criterion.

The graph below shows 80% of the average monthly demand and an estimate of 80% of the average demand when training exercises are occurring. During training exercises, an additional 100 to 120 rooms are needed. Note the number of existing rooms is 469, only slightly more than that suggested by “80% of Official Demand” criterion. The graph below compares the two potential alternatives to room inventory.



Source: Fort Hood Lodging Administration, compiled by 3D/I.

Using the “80% of Official Demand” criterion, the average occupancy is 75% and 80% of the official demand is met. On a monthly basis, occupancy ranges from 67% to 97% throughout the year. The graph below presents the expected occupancy percentage on a monthly basis.



Source: Fort Hood Lodging Administration, compiled by 3D/I.

## Summary and Recommendation

- Fort Hood is a large, active installation.
- The installation is estimated to have the same population in 2003 as it did in 1998 and is anticipated to remain stable over the next five years.
- The local private sector lodging market is relatively small and depends primarily on Fort Hood for its business. Any changes to Fort Hood's lodging stock will impact the private sector.
- Official demand has fluctuated significantly over the last five years, but appears to have an equilibrium level of 125,000 to 130,000 room nights annually.
- **Because the installation's** mission generates intermittent demand, it is likely that lodging will have vacancies of 25% and simultaneously have significant CNAs.
- The appropriate number of rooms supported by demand analysis at this site is 432 rooms. This room inventory allows the installation to meet 80% of the Official Demand and achieve an estimated occupancy of 75%.
- The existing demand justifies providing a room inventory at a rate lower than the current number of existing rooms

### ***Room Count and Mix Recommendation***

- 432 total units
- Room mix:
  - 133 standard hotel rooms
  - 153 extended-stay product offering a standard hotel room and a kitchenette
  - 146 extended-stay suite products offering a bedroom, kitchenette and sitting/living area.

### Section 4 Facility Assessment and Plans

Each Lodging facility on post is detailed in this section of the report. The outline of the detail is described below:

- **Summary of Existing Lodging Facility**
- **Significant Assumptions**, identifies criteria used for renovation / replacement cost models.
- **Cost Analysis**, summarizes recommendation based on cost.
- **Attributes**, describes number of rooms and configuration.
- **Condition Analysis and Recommendations** for each of the major systems of the building.
- **Major Functional Criteria Deficit**, describes any major Functional inadequacy based on Army standards.
- **Condition Assessment / Renovation / Replacement Analysis**
  - **Condition Assessment**, summarizes building system deficiencies grouped by CSI with additional hard cost and soft cost.
  - **Renovation**, summarizes building system costs plus functional renovation costs grouped by CSI with additional hard cost and soft cost.
  - **Replacement**, summarizes replacement cost grouped by CSI with additional hard cost and soft cost.



*Building 111  
Poxon Guest House*

## **Building 111**

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Building 111 was constructed in 1972 and under went limited renovation in 1997. The 30,645 square foot facility contains 75 lodging rooms functioning as 75 standard stay rooms.

### **Significant Assumptions**

The replacement cost model is based on 75 standard stay rooms. The renovation plan was not required because existing spaces meet current size requirements and the current building is in good condition to meet lodging requirements. Slight renovation colst for the removal of the front desk were included in the Condition Assessment Costs. The replacement cost model includes any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 85% for Fort Hood.

### **Cost Analysis**

Condition Assessment Cost	\$1,503,685.00
Replacement Cost	\$5,485,330.00
Condition Assessment to Replacement Cost Ratio	27.41%

Because the Condition Assessment to Replacement Cost Ratio is less than 50%, repair and continued use of Building 111 is recommended.

## **Attributes**

01.Number of Units Constructed	75
02.Number of Units Used	75
03.Back of House Function	Yes
04.Single Room w/o FullKitchen	75
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	75
11.Operating as Extended Stay	0
12.Operating as Family Suite	0
13.Renovated to Standard	75
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	0
16.Delta renovation	0

## **Condition Analysis/Recommendation**

### **FF&E**

#### **FF&E Allowance**

- Analysis: Guest Rooms: The hard goods consist of a head board, night stand, dresser in each bedroom, a couch, easy chair, coffee table, end table, desk and entertainment shelf unit in the living rooms. They are in fair condition. The soft goods consists of drapes and blinds on the windows, TV, mattress and box springs and bed coverings. They are in fair condition.
- Recommendation: Replace the hard and soft goods.

### **Foundations**

#### **Standard Foundations**

- Analysis: The foundation consists of grade beams on concrete piers over compacted soil. No failures can be seen from perimeter. The foundation seems to be functioning appropriately.
- Recommendation: No corrective action required.

#### **Slab on Grade**

- Analysis: The concrete slab rests on grade beams. It appears to be in good condition.
- Recommendation: No corrective action required.

### **Superstructure**

#### **Floor Construction**

- Analysis: The floor structure is slab on grade for the first floor, and poured in place concrete for the second floor. Both of them are in fair condition.
- Recommendation: No corrective action required.

#### **Roof Construction**

- Analysis: The roof consists of a wood plywood deck attached to sloped wooden rafters. The roof construction is in good condition.
- Recommendation: No corrective action required.

### **Exterior Enclosure**

#### **Exterior Walls**

- Analysis: The exterior walls are concrete block with a stucco skim coat painted with a high-end exterior masonry paint. The walls are in good condition.
- Recommendation: No corrective action required.

#### **Exterior Windows**

- Analysis: The windows are double glazed lites in aluminum frames. They are in good condition.
- Recommendation: No corrective action required.

#### **Exterior Doors**

- Analysis: The doors are hollow core metal and are in good condition.
- Recommendation: No corrective action required

## **Roofing**

### **Roof Coverings**

- Analysis: The roof covering is asphalt shingles over a plywood deck and it is in good condition. The roof was replaced in 1998.
- Recommendation: No corrective action required.

## **Interior Construction**

### **Partitions**

- Analysis: The interior partitions are drywall over wood stud framing. The partitions are in good condition.
- Recommendation: No corrective action required.

### **Interior Doors**

- Analysis: The interior doors are hollow core metal doors in steel frames. The interior doors are in good condition.
- Recommendation: No corrective action required.

### **Fittings**

- Analysis: The bathrooms did not contain toilet partitions.
- Recommendation: No corrective action required.

## **Stairs**

### **Stair Construction**

- Analysis: The stairs are concrete and steel and are in good condition.
- Recommendation: No corrective action required.

## **Interior Finishes**

### **Wall Finishes**

- Analysis: The wall finishes are a combination of paint over CMU or drywall. The paint is in poor condition.
- Recommendation: Prep and prime the wall surfaces for a new two coat paint system.

### **Floor Finishes**

- Analysis: Carpet is located in all guest rooms and in some common areas. The guest bathrooms have tile floors. VCT is used in the common kitchen and other areas. The carpet and VCT are in fair condition. The tile is in good condition.
- Recommendation: Replace the carpet and VCT.

### **Ceiling Finishes**

- Analysis: A suspended acoustical ceiling and grid is used in all common areas and is in fair condition. The guest rooms have painted drywall ceilings in fair condition.
- Recommendation: Replace the suspended acoustical ceiling and grid and repaint the guest room ceilings.



## **Conveying**

### **Elevators and Lifts**

- Analysis: There are no elevators..
- Recommendation: No corrective action required.

## **Plumbing**

### **Plumbing Fixtures**

- Analysis: Each unit has an individual rest room containing a lavatory and vanity, a water closet and a built in place shower/tub. The ventilation is a constant volume induced draft system. The plumbing fixtures are in good condition.
- Recommendation: No corrective action required.

### **Domestic Water Distribution**

- Analysis: The hot water is produced from a gas fired water heater located in the same building. The piping is in good condition.
- Recommendation: No corrective action required.

## **HVAC**

### **Cooling Generating Systems**

- Analysis: The building is conditioned by a chilled water circulating system with central controls.
- Recommendation: Install package terminal units with heat and individual controls in each room.

## **Fire Protection**

### **Sprinklers**

- Analysis: The building does not have a sprinkler system.
- Recommendation: Install a sprinkler system.

## **Electrical**

### **Electrical Service/Distribution**

- Analysis: The electrical service is supplied to the building from a pad mounted transformer. The secondary service is 120/208Y volt 3 phase with a 400 amp main disconnect. The distribution panels are located in the mechanical room to provide power for lighting and receptacles. The electrical service is in good condition.
- Recommendation: No corrective action required.

### **Communications and Security**

- Analysis: The rooms have hard-wired fire and smoke alarms.
- Recommendation: No corrective action required.

## **Site Preparation**

### **Site Earthwork**

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads.
- Recommendation: No corrective action required.

## **Site Improvements**

### **Parking Lots**

- Analysis: There is sufficient parking for the number of rooms with easy access to main roads. The parking spaces surround the building allowing easy access to individual rooms.
- Recommendation: No corrective action required.

### **Site Electrical Utilities**

#### **Site Lighting**

- Analysis: Site lighting is provided by pole mounted HPS lights. These are in good condition.
- Recommendation: No corrective action required.

## **Major Functional Criteria**

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Staff Toilets: Do not exist.

Renovation Recommendation: Space will be included in renovation.

Service Elevator: Does not exist.

Renovation Recommendation: Leave as is, building is two-story.

Clean / Dirty Linen Storage: Does not exist.

Renovation Recommendation: Space will be included in renovation.

- **Public Spaces**

Lobby: Space exists and is not required.

Renovation Recommendation: : Remove space as part of renovation.

Front Desk, Offices Lobby: Spaces exist and are not required.

Renovation Recommendation: Remove space as part of renovation.

Public Elevator: Does not exist.

Renovation Recommendation: Leave as is, building is two-story.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>09 Finishes</b>	<b>30.69%</b>	<b>\$274,034.22</b>
Acoustical Ceiling & Grid: Beyond expt useful life		\$67,962.99
Carpet: Beyond Useful Life		\$55,677.39
Interior ceilings: Paint Failing		\$4,012.00
Interior wall: Missing or inadequate		\$4,821.56
VCT: Beyond Useful Life		\$7,779.80
VCT: Damaged or Failing		\$7,131.67
Vinyl Wall Covering: Beyond expected useful life		\$126,648.81
<b>11 Equipment</b>	<b>0.67%</b>	<b>\$5,951.70</b>
Unit Kitchen: Beyond Useful Life		\$5,951.70
<b>12 Furnishings</b>	<b>0.56%</b>	<b>\$5,000.00</b>
Front Desk: Beyond expected useful life		\$5,000.00
<b>13 Special Construction</b>	<b>13.43%</b>	<b>\$119,861.80</b>
Fire Sprinklers: Missing or Inadequate		\$119,861.80
<b>15 Mechanical</b>	<b>12.65%</b>	<b>\$112,921.89</b>
Pipe, domestic water: Beyond expected useful life		\$390.39
PTAC: Missing or inadequate		\$112,531.50
<b>19 FF&amp;E</b>	<b>42.00%</b>	<b>\$375,000.00</b>
Hard and soft goods: Beyond expected useful life		\$375,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$892,770.00</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$4,910.24
Force Protection	9.00%	\$88,826.15
General Conditions	10.00%	\$89,277.00
<b>Total Additional Hard Cost</b>		<b>\$183,013.39</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$107,578.34
SIOH Conus	6.50%	\$76,918.51
Design	10.00%	\$107,578.34
08 MYr Inflation Fct	9.93%	\$135,828.36
<b>Total Soft Cost</b>		<b>\$427,903.55</b>
<b>Total Project</b>		<b>\$1,503,686.93</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>4.21%</b>	<b>\$155,806.49</b>
Parking Lots		\$53,618.00
Site Earthwork		\$102,188.49
<b>03 Concrete</b>	<b>15.70%</b>	<b>\$581,765.35</b>
Floor Construction		\$336,085.60
Slab on Grade		\$75,645.75
Stair Construction		\$18,742.50
Standard Foundations		\$151,291.50
<b>04 Masonry</b>	<b>4.92%</b>	<b>\$182,164.56</b>
Exterior Walls		\$182,164.56
<b>07 Thermal &amp; Moisture Protection</b>	<b>7.36%</b>	<b>\$272,710.50</b>
Roof Construction		\$86,842.29
Roof Coverings		\$185,868.21
<b>08 Doors &amp; Windows</b>	<b>9.53%</b>	<b>\$352,907.25</b>
Exterior Doors		\$8,351.25
Exterior Windows		\$268,600.00
Interior Doors		\$75,956.00
<b>09 Finishes</b>	<b>14.73%</b>	<b>\$545,782.41</b>
Ceiling Finishes		\$84,686.79
Floor Finishes		\$197,890.59
Partitions		\$150,921.53
Wall Finishes		\$112,283.50
<b>10 Specialties</b>	<b>0.11%</b>	<b>\$4,162.88</b>
Fittings		\$4,162.88
<b>13 Special Construction</b>	<b>4.92%</b>	<b>\$182,154.97</b>
Communications & Security		\$81,999.99
Sprinklers		\$100,154.97
<b>14 Conveying Systems</b>	<b>4.93%</b>	<b>\$182,580.00</b>
Elevators and Lifts		\$182,580.00
<b>15 Mechanical</b>	<b>16.81%</b>	<b>\$622,685.04</b>
Cooling Generating Systems		\$353,416.94
Domestic Water Dist		\$76,500.00
Plumbing Fixtures		\$192,768.10
<b>16 Electrical</b>	<b>6.67%</b>	<b>\$247,306.65</b>
Electrical Service & Distribution		\$245,440.90
Site Lighting		\$1,865.75
<b>19 FF&amp;E</b>	<b>10.12%</b>	<b>\$375,000.00</b>
Interior FF&E allowance		\$375,000.00
Total Raw Cost	100.00%	\$3,705,026.09

### Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$20,377.64

Force Protection	0.00%	\$0.00
General Cond	10.00%	\$370,502.61
<b>Total Additional Hard Cost</b>		<b>\$390,880.25</b>

**Soft Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$204,795.32
SIOH Conus	6.50%	\$279,545.61
Design	10.00%	\$409,590.63
08 MYr Inflation Fct	9.93%	\$495,490.90
<b>Total Soft Cost</b>		<b>\$1,389,422.46</b>
<b>Total Project Cost for Replacement</b>		<b>\$5,485,328.81</b>

**INSERT BUILDING 111 FLOOR PLANS HERE  
(EXISTING AND RENOVATION PLANS)**



*Building 5786  
McCully Hall*

## **Building 5786**

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Building 5786 was constructed in 1956. The 23,000 square foot facility contains 29 lodging rooms, 27 multi bedroom rooms without a full kitchen and 2 one bedroom rooms. The building is functioning as 27 family suites and 2 standard stay rooms.

### **Significant Assumptions**

The replacement and renovation cost models are based on 21 family suites and 18 extended stay rooms.

The renovation plan if required, would use the existing foot print with the plan reworked to meet current lodging size requirements.

The replacement cost model includes any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 85% for Fort Hood.

### **Cost Analysis**

Condition Assessment Cost	\$1,686,140.00
Replacement Cost	\$3,240,695.00
Condition Assessment to Replacement Cost Ratio	52.03%

Because the Condition Assessment to Replacement Cost Ratio is greater than 50%, renovation of Building 5786 is not recommended.

## **Attributes**

01.Number of Units Constructed	30
02.Number of Units Used	29
03.Back of House Function	No
04.Single Room w/o FullKitchen	2
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	27
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	2
11.Operating as Extended Stay	0
12.Operating as Family Suite	27
13.Renovated to Standard	0
14.Renovated to Extended Stay	18
15.Renovated to Family Suite	21
16.Delta renovation	10

## **Condition Analysis/Recommendation**

### **FF&E**

#### **FF&E Allowance**

- Analysis: Guest Rooms: The hard goods consist of a head board, night stand, dresser in each bedroom, a couch, easy chair, coffee table, end table, desk and entertainment shelf unit in the living rooms. They are in fair condition. The soft goods consists of drapes and blinds on the windows, TV, mattress and box springs and bed coverings. They are in poor condition.
- Recommendation: Replace the hard and soft goods.

### **Foundations**

#### **Standard Foundations**

- Analysis: The foundation is composed of perimeter beam and poured piers on compacted soil. Major structural fractures are evident in some rooms in the southeast end of the building.
- Recommendation: Provide a professional engineering services to determine the cause of failure and to develop cost estimates for repairs.

#### **Slab on Grade**

- Analysis: The slab has major structural fractures at the southeast end of the building.
- Recommendation: Provide a professional engineering services to determine cause of failure and to develop estimates for repair.

### **Superstructure**

#### **Floor Construction**

- Analysis: The structure is slab on grade for the first floor, and poured in place concrete for the second and third floor. The first floor slab has major structural fractures at the southeast end of the building.
- Recommendation: Provide a professional engineering services to determine cause of failure and to develop cost estimates for repairs.

#### **Roof Construction**

- Analysis: The roof is a concrete and membrane structure with a gravel ballast. It was replaced in 1998.
- Recommendation: No corrective action required.

### **Exterior Enclosure**

#### **Exterior Walls**

- Analysis: The walls are CMU in-fill between concrete piers.
- Recommendation: No corrective action required.

#### **Exterior Windows**



- Analysis: The aluminum single pane window are original to the building. The windows and screens do not need to be replaced.
- Recommendation: Replace the single pain windows with new double glazed windows.

#### **Exterior Doors**

- Analysis: The hollow core metal doors are in fair condition.
- Recommendation: No corrective action required.

### **Roofing**

#### **Roof Coverings**

- Analysis: The roof is built-up mastic and membrane covered with gravel ballast.
- Recommendation: No corrective action required.

### **Interior Construction**

#### **Partitions**

- Analysis: The drywall on wood studs in good condition.
- Recommendation: No corrective action required.

#### **Interior Doors**

- Analysis: The building has hollow core wood doors in wood frames. The the interior doors are in fair condition.
- Recommendation: Replace the interior doors and frames with 1 hour fire rated door.

### **Interior Finishes**

#### **Wall Finishes**

- Analysis: The wall finishes are in fair condition.
- Recommendation: Install vinyl wall covering. Replace the wall tile.

#### **Floor Finishes**

- Analysis: The floor finishes are: carpet in the main living areas, VCT in the kitchen and common areas and tile in the bathrooms. They are in poor condition.
- Recommendation: Replace the carpet, tile and vinyl.

#### **Ceiling Finishes**

- Analysis: The ceilings are painted gypsum board with smooth texture. The paint is in fair condition.
- Recommendation: Repaint the interior ceilings.

### **Plumbing**

#### **Plumbing Fixtures**

- Analysis: Each unit has an individual rest room containing a lavatory and vanity, a water closet and a built in place shower. The ventilation is a constant volume induced draft system. The plumbing fixtures are in fair condition.
- Recommendation: Replace the plumbing fixtures when replacing the domestic water distribution system.

### **Domestic Water Distribution**

- Analysis: The domestic water system is in fair condition. The hot water is supplied by a gas fired hot water heater located in the basement. The piping and equipment dates to original construction and is in poor condition.
- Recommendation: Replace the buildings domestic water system.

### **HVAC**

#### **Cooling Generating Systems**

- Analysis: The building has a two-pipe system with a central AHU and controls. The duct work is located above the ceiling in the hallway and is in poor condition. There are numerous condensation leaks.
- Recommendation: Replace the HVAC system with Package terminal units in each room.

### **Fire Protection**

#### **Sprinklers**

- Analysis: The building does not have a sprinkler system.
- Recommendation: Install a new fire sprinkler system.

### **Electrical**

#### **Electrical Service/Distribution**

- Analysis: The electrical service is provided by a pad mounted transformer located beside the building. The panel, branch circuits and fixtures are original to construction and are in poor condition.
- Recommendation: Replace the complete electrical system.

#### **Communications and Security**

- Analysis: There is a hard wired fire alarm and smoke detection system in each room.
- Recommendation: Replace the current system with a modern fire alarm system with central control.

### **Equipment**

#### **Other Equipment**

- Analysis: There are microwave ovens and 11 cubic foot refrigerators in the suites. They are in good condition.
- Recommendation: No corrective action required.

### **Site Preparation**

#### **Site Earthwork**

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.
- Recommendation: No corrective action required.

## Major Functional Criteria

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most back of the house spaces are required at the main lodging building on post. Presently these are located in building 36006, and are not included in this building.

- **Family Guest Suite**

The functional criteria deficits are listed, and each noted if it is included or not in the renovation plans or costs.

Room requirement: The suite does not contain a full kitchen.

Room size: The suite is slightly larger than required.

Cost to correct or modify these deficiencies would be included in a renovation cost model. Since the Condition Assessment Cost is greater than 50% of the Replacement Cost, these Cost were not included.

- **Public Spaces**

Most public spaces are required at the main lodging building on post. Presently these are located in building 36006, and are not included in this building.

- **Standard Guest Room**

The functional criteria deficits are listed, and each noted if it is included or not in the renovation plans or costs.

Room Size. The room sizes do not match Army Lodging standards.

Cost to correct or modify these deficiencies would be included in a renovation cost model. Since the Condition Assessment Cost is greater than 50% of the Replacement Cost, these Cost were not included.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>08 Doors &amp; Windows</b>	<b>10.76%</b>	<b>\$107,734.78</b>
Al. Windows - Beyond Useful Life		\$52,148.97
Wood Fire Doors: Missing or Inadequate		\$55,585.81
<b>09 Finishes</b>	<b>18.52%</b>	<b>\$185,366.31</b>
Carpet: Beyond Useful Life		\$27,270.44
Floor Tile: Damaged or Failing		\$11,352.60
Interior ceilings: Paint Failing		\$9,027.00
VCT: Damaged or Failing		\$11,886.01
Vinyl Wall Covering: Beyond expected useful life		\$74,743.56
Wall Tile: Damaged or Failing		\$51,086.70
<b>13 Special Construction</b>	<b>9.71%</b>	<b>\$97,157.98</b>
Fire Alarm System: Beyond Useful Life		\$19,720.00
Fire Sprinklers: Missing or Inadequate		\$77,437.98
<b>15 Mechanical</b>	<b>28.51%</b>	<b>\$285,440.41</b>
Domestic water system: Beyond expected useful life		\$45,127.90
Pipe, HVAC: Beyond expected useful life		\$12,296.95
PTAC: Missing or inadequate		\$87,024.36
Restroom exhaust: Beyond expected useful life		\$36,562.75
Shower: Beyond expected useful life		\$54,659.25
Sink & vanity: Replace due to remodel		\$19,703.85
Water closet: Replace due to remodel		\$25,267.95
Water heater: Beyond expected useful life		\$4,797.40
<b>16 Electrical</b>	<b>18.02%</b>	<b>\$180,397.63</b>
Branch Circuits: Beyond Expected Useful Life		\$61,338.13
Fixture: Incandescent fixture beyond expected life		\$81,132.50
Main service: Beyond expected useful life		\$37,927.00
<b>19 FF&amp;E</b>	<b>14.48%</b>	<b>\$145,000.00</b>
Hard and soft goods: Beyond expected useful life		\$145,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$1,001,097.00</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$5,506.03
Force Protection	9.00%	\$99,604.15
General Conditions	10.00%	\$100,109.70
<b>Total Additional Hard Cost</b>		<b>\$205,219.88</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$120,631.69

SIOH Conus	6.50%	\$86,251.66
Design	10.00%	\$120,631.69
08 MYr Inflation Fct	9.93%	\$152,309.51
<b>Total Soft Cost</b>		<b>\$479,824.54</b>
<b>Total Project</b>		<b>\$1,686,141.42</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>1.46%</b>	<b>\$31,912.72</b>
Site Earthwork		\$31,912.72
<b>03 Concrete</b>	<b>23.55%</b>	<b>\$515,513.56</b>
Floor Construction		\$397,563.31
Slab on Grade		\$23,591.75
Standard Foundations		\$94,358.50
<b>04 Masonry</b>	<b>5.53%</b>	<b>\$120,974.99</b>
Exterior Walls		\$120,974.99
<b>07 Thermal &amp; Moisture Protection</b>	<b>5.08%</b>	<b>\$111,270.49</b>
Roof Construction		\$52,873.72
Roof Coverings		\$58,396.77
<b>08 Doors &amp; Windows</b>	<b>8.69%</b>	<b>\$190,149.25</b>
Exterior Doors		\$5,240.25
Exterior Windows		\$146,200.00
Interior Doors		\$38,709.00
<b>09 Finishes</b>	<b>15.04%</b>	<b>\$329,287.12</b>
Ceiling Finishes		\$55,445.98
Floor Finishes		\$105,383.50
Partitions		\$89,436.21
Wall Finishes		\$79,021.44
<b>11 Equipment</b>	<b>3.03%</b>	<b>\$66,300.00</b>
Other Equipment		\$66,300.00
<b>13 Special Construction</b>	<b>5.19%</b>	<b>\$113,607.63</b>
Communications & Security		\$51,142.31
Sprinklers		\$62,465.33
<b>15 Mechanical</b>	<b>16.32%</b>	<b>\$357,165.21</b>
Cooling Generating Systems		\$220,421.46
Domestic Water Dist		\$39,780.00
Plumbing Fixtures		\$96,963.75
<b>16 Electrical</b>	<b>7.21%</b>	<b>\$157,722.60</b>
Electrical Service & Distribution		\$157,722.60
<b>19 FF&amp;E</b>	<b>8.91%</b>	<b>\$195,000.00</b>
Interior FF&E allowance		\$195,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$2,188,903.56</b>

### Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$12,038.97
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$218,890.36
<b>Total Additional Hard Cost</b>		<b>\$230,929.33</b>

### Soft Cost (Template: Army Lodging New Construction)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$120,991.64
SIOH Conus	6.50%	\$165,153.59
Design	10.00%	\$241,983.29
08 MYr Inflation Fct	9.93%	\$292,732.57
<b>Total Soft Cost</b>		<b>\$820,861.10</b>
<b>Total Project Cost for Replacement</b>		<b>\$3,240,693.99</b>

**INSERT BUILDING 5786 FLOOR PLANS HERE**





*Building 5788  
Dupas Hall*

## **Building 5788**

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Building 5788 was constructed in 1956. The 23,000 square foot facility contains 29 lodging rooms, 28 multi bedroom rooms without a full kitchen and 1 one bedroom rooms. The building is functioning as 28 family suites and 1 standard stay rooms.

### **Significant Assumptions**

The replacement and renovation cost models are based on 21 family suites and 18 extended stay rooms.

The renovation plan if required, would use the existing foot print with the plan reworked to meet current lodging size requirements.

The replacement cost model includes any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 85% for Fort Hood.

### **Cost Analysis**

Condition Assessment Cost	\$1,686,140.00
Replacement Cost	\$3,240,695.00
Condition Assessment to Replacement Cost Ratio	52.03%

Because the Condition Assessment to Replacement Cost Ratio is greater than 50%, renovation of Building 5788 is not recommended.

## **Attributes**

01.Number of Units Constructed	30
02.Number of Units Used	29
03.Back of House Function	Yes
04.Single Room w/o FullKitchen	2
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	27
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	2
11.Operating as Extended Stay	0
12.Operating as Family Suite	27
13.Renovated to Standard	0
14.Renovated to Extended Stay	18
15.Renovated to Family Suite	21
16.Delta renovation	10

## **Condition Analysis/Recommendation**

### **FF&E**

#### **FF&E Allowance**

- Analysis: Guest Rooms: The hard goods consist of a head board, night stand, dresser in each bedroom, a couch, easy chair, coffee table, end table, desk and entertainment shelf unit in the living rooms. They are in fair condition. The soft goods consists of drapes and blinds on the windows, TV, mattress, box springs and bed coverings. They are in poor condition.
- Recommendation: Replace the hard and soft goods.

### **Foundations**

#### **Standard Foundations**

- Analysis: The foundation is composed of perimeter beams and poured piers on compacted soil. Major structural fractures are evident in some of the rooms in the southeast end of the building.
- Recommendation: Provide a professional engineering services to determine the cause of failure and to develop cost estimates for repairs.

#### **Slab on Grade**

- Analysis: The slab has major structural fractures at the southeast end of the building.
- Recommendation: Provide a professional engineering services to determine the cause of the failure and to develop estimates for repair.

### **Superstructure**

#### **Floor Construction**

- Analysis: The structure is slab on grade for the first floor, and poured in place concrete for the second and third floor. The first floor slab has major structural fractures at the southeast end of the building.
- Recommendation: Provide a professional engineering services to determine the cause of the failure and to develop cost estimates for repairs.

#### **Roof Construction**

- Analysis: The roof is a concrete and membrane structure with gravel ballast. It was replaced in 1998.
- Recommendation: No corrective action required.

### **Exterior Enclosure**

#### **Exterior Walls**

- Analysis: The walls are CMU infill between concrete piers.
- Recommendation: No corrective action required.

#### **Exterior Windows**

- Analysis: The aluminum single pane window are original to the building. The windows and screens need to be replaced.
- Recommendation: Replace existing single pane windows with new double glazed windows.

#### **Exterior Doors**

- Analysis: The hollow core metal doors are in fair condition.
- Recommendation: No corrective action required.

### **Roofing**

#### **Roof Coverings**

- Analysis: The roof is built-up mastic and membrane covered with a gravel ballast.
- Recommendation: No corrective action required.

### **Interior Construction**

#### **Partitions**

- Analysis: The drywall on wood studs is in good condition.
- Recommendation: No corrective action required.

#### **Interior Doors**

- Analysis: The hollow core wood doors are in wood frames. The interior doors are in fair condition.
- Recommendation: Replace the interior doors and frames with 1 hour fire rated door.

### **Interior Finishes**

#### **Wall Finishes**

- Analysis: The wall finishes are in fair condition.
- Recommendation: Install vinyl wall covering.

#### **Floor Finishes**

- Analysis: The floor finishes are: carpet in the main living areas, VCT in the kitchen and common areas and tile in the bathrooms. They are in poor condition.
- Recommendation: Replace the carpet, tile and vinyl.

#### **Ceiling Finishes**

- Analysis: The ceilings are painted gypsum board with smooth texture. The paint is in fair condition.
- Recommendation: Repaint the interior ceilings.

### **Plumbing**

#### **Plumbing Fixtures**

- Analysis: Each unit has an individual rest room containing a lavatory and vanity, a water closet and a built in place shower. The ventilation is a constant volume induced draft system. The plumbing fixtures are in fair condition.
- Recommendation: Replace the plumbing fixtures when replacing the domestic water distribution system.

#### **Domestic Water Distribution**

- Analysis: The domestic water system is in fair condition. The hot water is supplied by a gas fired hot water heater located in the basement. The piping and equipment dates to original construction and is in poor condition.
- Recommendation: Replace the buildings domestic water system.

## **HVAC**

### **Cooling Generating Systems**

- Analysis: The building has a two-pipe system with a central AHU and controls. The duct work is located above the ceiling in the hallway and is in poor condition. Numerous condensation leaks have occurred.
- Recommendation: Replace the HVAC system with Package terminal units in each room.

## **Fire Protection**

### **Sprinklers**

- Analysis: The building does not have a sprinkler system.
- Recommendation: Install a new fire sprinkler system.

## **Electrical**

### **Electrical Service/Distribution**

- Analysis: The electrical service is provided by a pad mounted transformer located beside the building. The panel, branch circuits and fixtures are original to construction and are in poor condition.
- Recommendation: Replace the complete electrical system in the building.

### **Communications and Security**

- Analysis: There is a hard wired fire alarm and smoke detection system in each room.
- Recommendation: Replace the current system with a modern fire alarm system with central control.

## **Equipment**

### **Other Equipment**

- Analysis: There are microwave ovens and 11 cubic foot refrigerators in the suites. They are in good condition.
- Recommendation: No corrective action required.

## **Site Preparation**

### **Site Earthwork**

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.
- Recommendation: No corrective action required.

## Major Functional Criteria

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most back of the house spaces are required at the main lodging building on post. Presently these are located in building 36006, and are not included in this building.

- **Family Guest Suite**

The functional criteria deficits are listed, and each noted if it is included or not in the renovation plans or costs.

Room requirement: The suite does not contain a full kitchen.

Room size: The suite is slightly larger than required.

Cost to correct or modify these deficiencies would be included in a renovation cost model. Since the Condition Assessment Cost is greater than 50% of the Replacement Cost, these Cost were not included.

- **Public Spaces**

Most public spaces are required at the main lodging building on post. Presently these are located in building 36006, and are not included in this building.

- **Standard Guest Room**

The functional criteria deficits are listed, and each noted if it is included or not in the renovation plans or costs.

Room Size. The room sizes do not match Army Lodging standards.

Cost to correct or modify these deficiencies would be included in a renovation cost model. Since the Condition Assessment Cost is greater than 50% of the Replacement Cost, these Cost were not included.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>08 Doors &amp; Windows</b>	<b>10.76%</b>	<b>\$107,734.78</b>
Al. Windows - Beyond Useful Life		\$52,148.97
Wood Fire Doors: Missing or Inadequate		\$55,585.81
<b>09 Finishes</b>	<b>18.52%</b>	<b>\$185,366.31</b>
Carpet: Beyond Useful Life		\$27,270.44
Floor Tile: Damaged or Failing		\$11,352.60
Interior ceilings: Paint Failing		\$9,027.00
VCT: Damaged or Failing		\$11,886.01
Vinyl Wall Covering: Beyond expected useful life		\$74,743.56
Wall Tile: Damaged or Failing		\$51,086.70
<b>13 Special Construction</b>	<b>9.71%</b>	<b>\$97,157.98</b>
Fire Alarm System: Beyond Useful Life		\$19,720.00
Fire Sprinklers: Missing or Inadequate		\$77,437.98
<b>15 Mechanical</b>	<b>28.51%</b>	<b>\$285,440.41</b>
Domestic water system: Beyond expected useful life		\$45,127.90
Pipe, HVAC: Beyond expected useful life		\$12,296.95
PTAC: Missing or inadequate		\$87,024.36
Restroom exhaust: Beyond expected useful life		\$36,562.75
Shower: Beyond expected useful life		\$54,659.25
Sink & vanity: Replace due to remodel		\$19,703.85
Water closet: Replace due to remodel		\$25,267.95
Water heater: Beyond expected useful life		\$4,797.40
<b>16 Electrical</b>	<b>18.02%</b>	<b>\$180,397.63</b>
Branch Circuits: Beyond Expected Useful Life		\$61,338.13
Fixture: Incandescent fixture beyond expected life		\$81,132.50
Main service: Beyond expected useful life		\$37,927.00
<b>19 FF&amp;E</b>	<b>14.48%</b>	<b>\$145,000.00</b>
Hard and soft goods: Beyond expected useful life		\$145,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$1,001,097.00</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$5,506.03
Force Protection	9.00%	\$99,604.15
General Conditions	10.00%	\$100,109.70
<b>Total Additional Hard Cost</b>		<b>\$205,219.88</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$120,631.69

SIOH Conus	6.50%	\$86,251.66
Design	10.00%	\$120,631.69
08 MYr Inflation Fct	9.93%	\$152,309.51
<b>Total Soft Cost</b>		<b>\$479,824.54</b>
<b>Total Project</b>		<b>\$1,686,141.42</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>1.46%</b>	<b>\$31,912.72</b>
Site Earthwork		\$31,912.72
<b>03 Concrete</b>	<b>23.55%</b>	<b>\$515,513.56</b>
Floor Construction		\$397,563.31
Slab on Grade		\$23,591.75
Standard Foundations		\$94,358.50
<b>04 Masonry</b>	<b>5.53%</b>	<b>\$120,974.99</b>
Exterior Walls		\$120,974.99
<b>07 Thermal &amp; Moisture Protection</b>	<b>5.08%</b>	<b>\$111,270.49</b>
Roof Construction		\$52,873.72
Roof Coverings		\$58,396.77
<b>08 Doors &amp; Windows</b>	<b>8.69%</b>	<b>\$190,149.25</b>
Exterior Doors		\$5,240.25
Exterior Windows		\$146,200.00
Interior Doors		\$38,709.00
<b>09 Finishes</b>	<b>15.04%</b>	<b>\$329,287.12</b>
Ceiling Finishes		\$55,445.98
Floor Finishes		\$105,383.50
Partitions		\$89,436.21
Wall Finishes		\$79,021.44
<b>11 Equipment</b>	<b>3.03%</b>	<b>\$66,300.00</b>
Other Equipment		\$66,300.00
<b>13 Special Construction</b>	<b>5.19%</b>	<b>\$113,607.63</b>
Communications & Security		\$51,142.31
Sprinklers		\$62,465.33
<b>15 Mechanical</b>	<b>16.32%</b>	<b>\$357,165.21</b>
Cooling Generating Systems		\$220,421.46
Domestic Water Dist		\$39,780.00
Plumbing Fixtures		\$96,963.75
<b>16 Electrical</b>	<b>7.21%</b>	<b>\$157,722.60</b>
Electrical Service & Distribution		\$157,722.60
<b>19 FF&amp;E</b>	<b>8.91%</b>	<b>\$195,000.00</b>
Interior FF&E allowance		\$195,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$2,188,903.56</b>

### Additional Hard Cost (Template: Army Lodging New Construction)

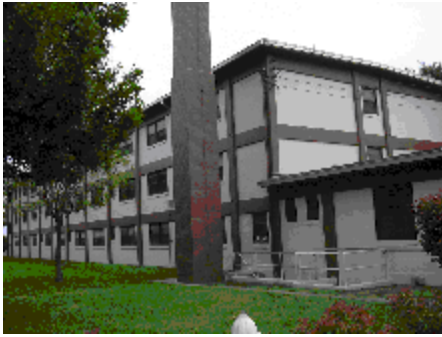
Parameter Name	Percent	Amount
Spirit	0.50%	\$12,038.97
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$218,890.36
<b>Total Additional Hard Cost</b>		<b>\$230,929.33</b>

### Soft Cost (Template: Army Lodging New Construction)



<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$120,991.64
SIOH Conus	6.50%	\$165,153.59
Design	10.00%	\$241,983.29
08 MYr Inflation Fct	9.93%	\$292,732.57
<b>Total Soft Cost</b>		<b>\$820,861.10</b>
<b>Total Project Cost for Replacement</b>		<b>\$3,240,693.99</b>

**INSERT BUILDING 5788 FLOOR PLANS HERE**



*Building 5790  
Peebles Hall*

## **Building 5790**

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Building 5790 was constructed in 1956. The 23,000 square foot facility contains 30 lodging rooms, 28 multi bedroom rooms without a full kitchen and 2 one bedroom rooms. The building is functioning as 28 family suites and 2 standard stay rooms.

### **Significant Assumptions**

The replacement and renovation cost models are based on 21 family suites and 18 extended stay rooms.

The renovation plan if required, would use the existing foot print with the plan reworked to meet current lodging size requirements.

The replacement cost model includes any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 85% for Fort Hood.

### **Cost Analysis**

Condition Assessment Cost	\$1,694,565.00
Replacement Cost	\$3,240,695.00
Condition Assessment to Replacement Cost Ratio	52.29%

Because the Condition Assessment to Replacement Cost Ratio is greater than 50%, renovation of Building 5790 is not recommended.

## **Attributes**

01.Number of Units Constructed	30
02.Number of Units Used	30
03.Back of House Function	Yes
04.Single Room w/o FullKitchen	2
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	28
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	2
11.Operating as Extended Stay	0
12.Operating as Family Suite	28
13.Renovated to Standard	0
14.Renovated to Extended Stay	18
15.Renovated to Family Suite	21
16.Delta renovation	9

## **Condition Analysis/Recommendation**

### **FF&E**

#### **FF&E Allowance**

- Analysis: Guest Rooms: The hard goods consist of a head board, night stand, dresser in each bedroom, a couch, easy chair, coffee table, end table, desk and entertainment shelf unit in the living rooms. They are in fair condition. The soft goods consists of drapes and blinds on the windows, TV, mattress and box springs and bed coverings. They are in poor condition.
- Recommendation: Replace the hard and soft goods.

### **Foundations**

#### **Standard Foundations**

- Analysis: The foundation is composed of perimeter beams and poured piers on compacted soil. Major structural fractures are evident in some of the rooms in the southeast end of the building.
- Recommendation: Provide a professional engineering services to determine the cause of the failure and to develop cost estimates for repairs.

#### **Slab on Grade**

- Analysis: The slab has major structural fractures at the southeast end of the building.
- Recommendation: Provide a professional engineering services to determine the cause of the failure and to develop cost estimates for repairs.

### **Superstructure**

#### **Floor Construction**

- Analysis: The structure is a slab on grade for the first floor, and poured in place concrete for the second and third floor. The first floor slab has major structural fractures at the southeast end of the building.
- Recommendation: Provide a professional engineering services to determine the cause of the failure and to develop cost estimates for repairs.

#### **Roof Construction**

- Analysis: The roof is a concrete and membrane structure with a gravel ballast. It was replaced in 1998.
- Recommendation: No corrective action required.

### **Exterior Enclosure**

#### **Exterior Walls**

- Analysis: The walls are CMU infill between concrete piers.
- Recommendation: No corrective action required.

#### **Exterior Windows**

- Analysis: The aluminum single pane window are original to the building. The windows and screens need to be replaced.
- Recommendation: Replace the single paned windows with new double glazed windows.

#### **Exterior Doors**

- Analysis: The hollow core metal doors are in fair condition.
- Recommendation: No corrective action required.

### **Roofing**

#### **Roof Coverings**

- Analysis: The roof is built-up mastic and membrane covered with a gravel ballast.
- Recommendation: No corrective action required.

### **Interior Construction**

#### **Partitions**

- Analysis: The drywall on wood studs is in good condition.
- Recommendation: No corrective action required.

#### **Interior Doors**

- Analysis: The hollow core wood doors are in wood frames. The interior doors are in fair condition.
- Recommendation: Replace the interior doors and frames with 1 hour fire rated door.

### **Interior Finishes**

#### **Wall Finishes**

- Analysis: The wall finishes are in fair condition.
- Recommendation: Install vinyl wall covering.

#### **Floor Finishes**

- Analysis: The floor finishes are: carpet in the main living areas, VCT in the kitchen and common areas and tile in the bathrooms. They are in poor condition.
- Recommendation: Replace the carpet, tile and vinyl.

#### **Ceiling Finishes**

- Analysis: The ceilings are painted gypsum board with smooth texture. The paint is in fair condition.
- Recommendation: Repaint the interior ceilings.

### **Plumbing**

#### **Plumbing Fixtures**

- Analysis: Each unit has an individual rest room containing a lavatory and vanity, a water closet and a built in place shower. The ventilation is a constant volume induced draft system. The plumbing fixtures are in fair condition.
- Recommendation: Replace the plumbing fixtures when replacing the domestic water distribution system.

#### **Domestic Water Distribution**

- Analysis: The domestic water system is in fair condition. The hot water is supplied by a gas fired hot water heater located in the basement. The piping and equipment dates to original construction and is in poor condition.
- Recommendation: Replace the buildings domestic water system.

## **HVAC**

### **Cooling Generating Systems**

- Analysis: The building has a two-pipe system with a central AHU and controls. The duct work is located above the ceiling in the hallway and is in poor condition. Numerous condensation leaks have occurred.
- Recommendation: Replace the HVAC system with Package terminal units in each room.

## **Fire Protection**

### **Sprinklers**

- Analysis: The building does not have a sprinkler system.
- Recommendation: Install a new fire sprinkler system.

## **Electrical**

### **Electrical Service/Distribution**

- Analysis: The electrical service is provided by a pad mounted transformer located beside the building. The panel, branch circuits and fixtures are original to construction and are in poor condition.
- Recommendation: Replace the complete electrical system in the building.

### **Communications and Security**

- Analysis: There is a hard wired fire alarm and smoke dection system in each room.
- Recommendation: Replace the current system with a modern fire alarm system with central control.

## **Equipment**

### **Other Equipment**

- Analysis: There are microwave ovens and 11 cubic foot refrigerators in the suites. They are in good condition.
- Recommendation: No corrective action required.

## **Site Preparation**

### **Site Earthwork**

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.
- Recommendation: No corrective action required.

## Major Functional Criteria

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most back of the house spaces are required at the main lodging building on post. Presently these are located in building 36006, and are not included in this building.

- **Family Guest Suite**

The functional criteria deficits are listed, and each noted if it is included or not in the renovation plans or costs.

Room requirement: The suite does not contain a full kitchen.

Room size: The suite is slightly larger than required.

Cost to correct or modify these deficiencies would be included in a renovation cost model. Since the Condition Assessment Cost is greater than 50% of the Replacement Cost, these Cost were not included.

- **Public Spaces**

Most public spaces are required at the main lodging building on post. Presently these are located in building 36006, and are not included in this building.

- **Standard Guest Room**

The functional criteria deficits are listed, and each noted if it is included or not in the renovation plans or costs.

Room Size. The room sizes do not match Army Lodging standards.

Cost to correct or modify these deficiencies would be included in a renovation cost model. Since the Condition Assessment Cost is greater than 50% of the Replacement Cost, these Cost were not included.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>08 Doors &amp; Windows</b>	<b>10.71%</b>	<b>\$107,734.78</b>
Al. Windows - Beyond Useful Life		\$52,148.97
Wood Fire Doors: Missing or Inadequate		\$55,585.81
<b>09 Finishes</b>	<b>18.42%</b>	<b>\$185,366.31</b>
Carpet: Beyond Useful Life		\$27,270.44
Floor Tile: Damaged or Failing		\$11,352.60
Interior ceilings: Paint Failing		\$9,027.00
VCT: Damaged or Failing		\$11,886.01
Vinyl Wall Covering: Beyond expected useful life		\$74,743.56
Wall Tile: Damaged or Failing		\$51,086.70
<b>13 Special Construction</b>	<b>9.66%</b>	<b>\$97,157.98</b>
Fire Alarm System: Beyond Useful Life		\$19,720.00
Fire Sprinklers: Missing or Inadequate		\$77,437.98
<b>15 Mechanical</b>	<b>28.37%</b>	<b>\$285,440.41</b>
Domestic water system: Beyond expected useful life		\$45,127.90
Pipe, HVAC: Beyond expected useful life		\$12,296.95
PTAC: Missing or inadequate		\$87,024.36
Restroom exhaust: Beyond expected useful life		\$36,562.75
Shower: Beyond expected useful life		\$54,659.25
Sink & vanity: Replace due to remodel		\$19,703.85
Water closet: Replace due to remodel		\$25,267.95
Water heater: Beyond expected useful life		\$4,797.40
<b>16 Electrical</b>	<b>17.93%</b>	<b>\$180,397.63</b>
Branch Circuits: Beyond Expected Useful Life		\$61,338.13
Fixture: Incandescent fixture beyond expected life		\$81,132.50
Main service: Beyond expected useful life		\$37,927.00
<b>19 FF&amp;E</b>	<b>14.91%</b>	<b>\$150,000.00</b>
Hard and soft goods: Beyond expected useful life		\$150,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$1,006,097.00</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$5,533.53
Force Protection	9.00%	\$100,101.62
General Conditions	10.00%	\$100,609.70
<b>Total Additional Hard Cost</b>		<b>\$206,244.85</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$121,234.19



SIOH Conus	6.50%	\$86,682.44
Design	10.00%	\$121,234.19
08 MYr Inflation Fct	9.93%	\$153,070.22
<b>Total Soft Cost</b>		<b>\$482,221.04</b>
<b>Total Project</b>		<b>\$1,694,562.89</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>1.46%</b>	<b>\$31,912.72</b>
Site Earthwork		\$31,912.72
<b>03 Concrete</b>	<b>23.55%</b>	<b>\$515,513.56</b>
Floor Construction		\$397,563.31
Slab on Grade		\$23,591.75
Standard Foundations		\$94,358.50
<b>04 Masonry</b>	<b>5.53%</b>	<b>\$120,974.99</b>
Exterior Walls		\$120,974.99
<b>07 Thermal &amp; Moisture Protection</b>	<b>5.08%</b>	<b>\$111,270.49</b>
Roof Construction		\$52,873.72
Roof Coverings		\$58,396.77
<b>08 Doors &amp; Windows</b>	<b>8.69%</b>	<b>\$190,149.25</b>
Exterior Doors		\$5,240.25
Exterior Windows		\$146,200.00
Interior Doors		\$38,709.00
<b>09 Finishes</b>	<b>15.04%</b>	<b>\$329,287.12</b>
Ceiling Finishes		\$55,445.98
Floor Finishes		\$105,383.50
Partitions		\$89,436.21
Wall Finishes		\$79,021.44
<b>11 Equipment</b>	<b>3.03%</b>	<b>\$66,300.00</b>
Other Equipment		\$66,300.00
<b>13 Special Construction</b>	<b>5.19%</b>	<b>\$113,607.63</b>
Communications & Security		\$51,142.31
Sprinklers		\$62,465.33
<b>15 Mechanical</b>	<b>16.32%</b>	<b>\$357,165.21</b>
Cooling Generating Systems		\$220,421.46
Domestic Water Dist		\$39,780.00
Plumbing Fixtures		\$96,963.75
<b>16 Electrical</b>	<b>7.21%</b>	<b>\$157,722.60</b>
Electrical Service & Distribution		\$157,722.60
<b>19 FF&amp;E</b>	<b>8.91%</b>	<b>\$195,000.00</b>
Interior FF&E allowance		\$195,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$2,188,903.56</b>

### Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$12,038.97
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$218,890.36
<b>Total Additional Hard Cost</b>		<b>\$230,929.33</b>

### Soft Cost (Template: Army Lodging New Construction)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$120,991.64
SIOH Conus	6.50%	\$165,153.59
Design	10.00%	\$241,983.29
08 MYr Inflation Fct	9.93%	\$292,732.57
<b>Total Soft Cost</b>		<b>\$820,861.10</b>
<b>Total Project Cost for Replacement</b>		<b>\$3,240,693.99</b>

**INSERT BUILDING 5790 FLOOR PLANS HERE**



*Building 5792  
Moore Hall*

## **Building 5792**

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Building 5792 was constructed in 1956. The 23,000 square foot facility contains 30 lodging rooms, 28 multi bedroom rooms without a full kitchen and 2 one bedroom rooms. The building is functioning as 28 family suites and 2 standard stay rooms.

### **Significant Assumptions**

The replacement and renovation cost models are based on 21 family suites and 18 extended stay rooms.

The renovation plan if required, would use the existing foot print with the plan reworked to meet current lodging size requirements.

The replacement cost model includes any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 85% for Fort Hood.

### **Cost Analysis**

Condition Assessment Cost	\$1,694,565.00
Replacement Cost	\$3,240,695.00
Condition Assessment to Replacement Cost Ratio	52.29%

Because the Condition Assessment to Replacement Cost Ratio is greater than 50%, renovation of Building 5792 is not recommended.

## **Attributes**

01.Number of Units Constructed	30
02.Number of Units Used	30
03.Back of House Function	Yes
04.Single Room w/o FullKitchen	2
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	28
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	2
11.Operating as Extended Stay	0
12.Operating as Family Suite	28
13.Renovated to Standard	0
14.Renovated to Extended Stay	18
15.Renovated to Family Suite	21
16.Delta renovation	9

## **Condition Analysis/Recommendation**

### **FF&E**

#### **FF&E Allowance**

- Analysis: Guest Rooms: The hard goods consist of a head board, night stand, dresser in each bedroom, a couch, easy chair, coffee table, end table, desk and entertainment shelf unit in the living rooms. They are in fair condition. The soft goods consists of drapes and blinds on the windows, TV, mattress and box springs and bed coverings. They are in poor condition.
- Recommendation: Replace the hard and soft goods.

### **Foundations**

#### **Standard Foundations**

- Analysis: The foundation is composed of perimeter beams and poured piers on compacted soil. Major structural fractures are evident in some of the rooms in the southeast end of the building.
- Recommendation: Provide a professional engineering service to determine the cause of the failure and to develop cost estimates for repairs.

#### **Slab on Grade**

- Analysis: The slab has major structural fractures at the southeast end of the building.
- Recommendation: Provide a professional engineering service to determine the cause of the failure and to develop cost estimates for repair.

### **Superstructure**

#### **Floor Construction**

- Analysis: The structure is a slab on grade for the first floor, and poured in place concrete for the second and third floor. The first floor slab has major structural fractures at the southeast end of the building.
- Recommendation: Provide a professional engineering service to determine the cause of the failure and to develop cost estimates for repairs.

#### **Roof Construction**

- Analysis: The roof is a concrete and membrane structure with a gravel ballast. It was replaced in 1998.
- Recommendation: No corrective action required.

### **Exterior Enclosure**

#### **Exterior Walls**

- Analysis: The walls are CMU infill between concrete piers.
- Recommendation: No corrective action required.

#### **Exterior Windows**

- Analysis: The aluminum single pane windows are original to the building. The windows and screens need to be replaced.
- Recommendation: Replace the single paned windows with new double glazed windows.

#### **Exterior Doors**

- Analysis: The hollow core metal doors are in fair condition.
- Recommendation: No corrective action required.

### **Roofing**

#### **Roof Coverings**

- Analysis: The roof is built-up mastic and membrane covered with a gravel ballast.
- Recommendation: No corrective action required.

### **Interior Construction**

#### **Partitions**

- Analysis: The drywall on wood studs is in good condition.
- Recommendation: No corrective action required.

#### **Interior Doors**

- Analysis: The hollow core wood doors are in wood frames. The interior doors are in fair condition.
- Recommendation: Replace the interior doors and frames with 1 hour fire rated door.

### **Interior Finishes**

#### **Wall Finishes**

- Analysis: The wall finishes are in fair condition.
- Recommendation: Install vinyl wall covering.

#### **Floor Finishes**

- Analysis: The floor finishes are: carpet in the main living areas, VCT in the kitchen and common areas and tile in the bathrooms. They are in poor condition.
- Recommendation: Replace the carpet, tile and vinyl.

#### **Ceiling Finishes**

- Analysis: The ceilings are painted gypsum board with smooth texture. The paint is in fair condition.
- Recommendation: Repaint the interior ceilings.

### **Plumbing**

#### **Plumbing Fixtures**

- Analysis: Each unit has an individual rest room containing a lavatory and vanity, a water closet and a built in place shower. The ventilation is a constant volume induced draft system. The plumbing fixtures are in fair condition.
- Recommendation: Replace the plumbing fixtures when replacing the domestic water distribution system.

#### **Domestic Water Distribution**

- Analysis: The domestic water system is in fair condition. The hot water is supplied by a gas fired hot water heater located in the basement. The piping and equipment dates to original construction and is in poor condition.
- Recommendation: Replace the buildings domestic water system.

## **HVAC**

### **Cooling Generating Systems**

- Analysis: The building has a two-pipe system with a central AHU and controls. The duct work is located above the ceiling in the hallway and is in poor condition. Numerous condensation leaks have occurred.
- Recommendation: Replace the HVAC system with Package terminal units in each room.

## **Fire Protection**

### **Sprinklers**

- Analysis: The building does not have a sprinkler system.
- Recommendation: Install a new fire sprinkler system.

## **Electrical**

### **Electrical Service/Distribution**

- Analysis: The electrical service is provided by a pad mounted transformer located beside the building. The panel, branch circuits and fixtures are original to construction and are in poor condition.
- Recommendation: Replace the complete electrical system.

### **Communications and Security**

- Analysis: There is a hard wired fire alarm and smoke detection system in each room.
- Recommendation: Replace current system with a modern fire alarm system with central control.

## **Equipment**

### **Other Equipment**

- Analysis: There are microwave ovens and 11 cubic foot refrigerators in the suites. They are in good condition.
- Recommendation: No corrective action required.

## **Site Preparation**

### **Site Earthwork**

- Analysis: The site consists of grass covered yard areas and shared parking lots with access to main roads. The site is graded properly to allow for drainage. The site is in good condition.
- Recommendation: No corrective action required.

## **Major Functional Criteria**



- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most back of the house spaces are required at the main lodging building on post. Presently these are located in building 36006, and are not included in this building.

- **Family Guest Suite**

The functional criteria deficits are listed, and each noted if it is included or not in the renovation plans or costs.

Room requirement: The suite does not contain a full kitchen.

Room size: The suite is slightly larger than required.

Cost to correct or modify these deficiencies would be included in a renovation cost model. Since the Condition Assessment Cost is greater than 50% of the Replacement Cost, these Cost were not included.

- **Public Spaces**

Most public spaces are required at the main lodging building on post. Presently these are located in building 36006, and are not included in this building.

- **Standard Guest Room**

The functional criteria deficits are listed, and each noted if it is included or not in the renovation plans or costs.

Room Size. The room sizes do not match Army Lodging standards.

Cost to correct or modify these deficiencies would be included in a renovation cost model. Since the Condition Assessment Cost is greater than 50% of the Replacement Cost, these Cost were not included.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>08 Doors &amp; Windows</b>	<b>10.71%</b>	<b>\$107,734.78</b>
Al. Windows - Beyond Useful Life		\$52,148.97
Wood Fire Doors: Missing or Inadequate		\$55,585.81
<b>09 Finishes</b>	<b>18.42%</b>	<b>\$185,366.31</b>
Carpet: Beyond Useful Life		\$27,270.44
Floor Tile: Damaged or Failing		\$11,352.60
Interior ceilings: Paint Failing		\$9,027.00
VCT: Damaged or Failing		\$11,886.01
Vinyl Wall Covering: Beyond expected useful life		\$74,743.56
Wall Tile: Damaged or Failing		\$51,086.70
<b>13 Special Construction</b>	<b>9.66%</b>	<b>\$97,157.98</b>
Fire Alarm System: Beyond Useful Life		\$19,720.00
Fire Sprinklers: Missing or Inadequate		\$77,437.98
<b>15 Mechanical</b>	<b>28.37%</b>	<b>\$285,440.41</b>
Domestic water system: Beyond expected useful life		\$45,127.90
Pipe, HVAC: Beyond expected useful life		\$12,296.95
PTAC: Missing or inadequate		\$87,024.36
Restroom exhaust: Beyond expected useful life		\$36,562.75
Shower: Beyond expected useful life		\$54,659.25
Sink & vanity: Replace due to remodel		\$19,703.85
Water closet: Replace due to remodel		\$25,267.95
Water heater: Beyond expected useful life		\$4,797.40
<b>16 Electrical</b>	<b>17.93%</b>	<b>\$180,397.63</b>
Branch Circuits: Beyond Expected Useful Life		\$61,338.13
Fixture: Incandescent fixture beyond expected life		\$81,132.50
Main service: Beyond expected useful life		\$37,927.00
<b>19 FF&amp;E</b>	<b>14.91%</b>	<b>\$150,000.00</b>
Hard and soft goods: Beyond expected useful life		\$150,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$1,006,097.00</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$5,533.53
Force Protection	9.00%	\$100,101.62
General Conditions	10.00%	\$100,609.70
<b>Total Additional Hard Cost</b>		<b>\$206,244.85</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$121,234.19

SIOH Conus	6.50%	\$86,682.44
Design	10.00%	\$121,234.19
08 MYr Inflation Fct	9.93%	\$153,070.22
<b>Total Soft Cost</b>		<b>\$482,221.04</b>
<b>Total Project</b>		<b>\$1,694,562.89</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>1.46%</b>	<b>\$31,912.72</b>
Site Earthwork		\$31,912.72
<b>03 Concrete</b>	<b>23.55%</b>	<b>\$515,513.56</b>
Floor Construction		\$397,563.31
Slab on Grade		\$23,591.75
Standard Foundations		\$94,358.50
<b>04 Masonry</b>	<b>5.53%</b>	<b>\$120,974.99</b>
Exterior Walls		\$120,974.99
<b>07 Thermal &amp; Moisture Protection</b>	<b>5.08%</b>	<b>\$111,270.49</b>
Roof Construction		\$52,873.72
Roof Coverings		\$58,396.77
<b>08 Doors &amp; Windows</b>	<b>8.69%</b>	<b>\$190,149.25</b>
Exterior Doors		\$5,240.25
Exterior Windows		\$146,200.00
Interior Doors		\$38,709.00
<b>09 Finishes</b>	<b>15.04%</b>	<b>\$329,287.12</b>
Ceiling Finishes		\$55,445.98
Floor Finishes		\$105,383.50
Partitions		\$89,436.21
Wall Finishes		\$79,021.44
<b>11 Equipment</b>	<b>3.03%</b>	<b>\$66,300.00</b>
Other Equipment		\$66,300.00
<b>13 Special Construction</b>	<b>5.19%</b>	<b>\$113,607.63</b>
Communications & Security		\$51,142.31
Sprinklers		\$62,465.33
<b>15 Mechanical</b>	<b>16.32%</b>	<b>\$357,165.21</b>
Cooling Generating Systems		\$220,421.46
Domestic Water Dist		\$39,780.00
Plumbing Fixtures		\$96,963.75
<b>16 Electrical</b>	<b>7.21%</b>	<b>\$157,722.60</b>
Electrical Service & Distribution		\$157,722.60
<b>19 FF&amp;E</b>	<b>8.91%</b>	<b>\$195,000.00</b>
Interior FF&E allowance		\$195,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$2,188,903.56</b>

### Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$12,038.97
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$218,890.36
<b>Total Additional Hard Cost</b>		<b>\$230,929.33</b>

### Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$120,991.64
SIOH Conus	6.50%	\$165,153.59
Design	10.00%	\$241,983.29
08 MYr Inflation Fct	9.93%	\$292,732.57
<b>Total Soft Cost</b>		<b>\$820,861.10</b>
<b>Total Project Cost for Replacement</b>		<b>\$3,240,693.99</b>

**INSERT BUILDING 5792 FLOOR PLANS HERE**



*Building 6827  
George S Patton House*

## **Building 6827**

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Building 6827 was constructed in 1961. The 1,520 square foot facility contains a DVQ with a full kitchen. The building is functioning as a family suite for high ranking visitors.

### **Significant Assumptions**

The replacement and renovation cost models are based on 1 family suite and 1 extended stay room.

The renovation uses the existing foot print, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 85% for Ft Hood.

### **Cost Analysis**

Renovation Cost	\$141,545.00
Replacement Cost	\$160,285.00
Renovation to Replacement Cost Ratio	88.31%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 6827 is not recommended.

## **Attributes**

01.Number of Units Constructed	1
02.Number of Units Used	1
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	1
10.Operating as Standard Room	0
11.Operating as Extended Stay	0
12.Operating as Family Suite	0
13.Renovated to Standard	0
14.Renovated to Extended Stay	1
15.Renovated to Family Suite	1
16.Delta renovation	1

## **Condition Analysis/Recommendation**

### **FF&E**

#### **FF&E Allowance**

- Analysis: Guest Room: The hard goods consist of head boards, night stands, dresser in each bedroom, desk w/chair, a couch, davenport, table w/chairs, easy chairs, coffee table, end tables and a TV cabinet with drawers. All are in good condition. The soft goods consist of drapes and blinds on the windows, TV and bed. All are in good condition. These furnishings are high end goods installed in 2000, and are consistent with their use for a general officer DVQ.
- Recommendation: No corrective action required. All the FF&E should be replaced if the structure is renovated. If the structure is not renovated, the FF&E should be replaced no later than 2010.

### **Foundations**

#### **Standard Foundations**

- Analysis: The foundation is a concrete slab on grade beams. No evidence of failure was noted. It is in good condition.
- Recommendation: No corrective action required.

#### **Slab on Grade**

- Analysis: The concrete slab is in good condition.
- Recommendation: No corrective action required.

### **Superstructure**

#### **Floor Construction**

- Analysis: The floor structure is a slab on grade and is in good condition.
- Recommendation: No corrective action required.

#### **Roof Construction**

- Analysis: The roof consists of a wood plywood deck attached to sloped wooden rafters. The roof construction is in good condition.
- Recommendation: No corrective action required.

### **Exterior Enclosure**

#### **Exterior Walls**

- Analysis: The exterior walls are a combination of brick veneer and vinyl siding over wood stud framing. The wall surfaces appear to be in good condition.
- Recommendation: No corrective action required.

#### **Exterior Windows**

- Analysis: The exterior windows are double hung aluminum windows and are in good condition.
- Recommendation: No corrective action required.

#### **Exterior Doors**



- Analysis: The exterior doors are solid wood and are in good condition.
- Recommendation: No corrective action required.

## **Roofing**

### **Roof Coverings**

- Analysis: The roof system is mastic and ballast over plywood sheathing and is in fair condition.
- Recommendation: Replace the roof.

## **Interior Construction**

### **Partitions**

- Analysis: The partition walls are drywall over wood stud framing and are in good condition.
- Recommendation: No corrective action required.

### **Interior Doors**

- Analysis: The interior doors are solid core wood and are in wood frames. The interior doors are in good condition.
- Recommendation: No corrective action required.

## **Interior Finishes**

### **Wall Finishes**

- Analysis: The wall finishes are a combination of smooth texture drywall and vinyl wall coverings. Both of the coverings are in fair condition.
- Recommendation: Re coat the painted surfaces.

### **Floor Finishes**

- Analysis: The unit has three year old carpet that is in fair condition. The bathrooms have ceramic tile and are in good condition.
- Recommendation: Replace the carpet.

### **Ceiling Finishes**

- Analysis: The ceilings are painted gypsum board with smooth texture. The paint is in good condition.
- Recommendation: No corrective action required.

## **Plumbing**

### **Plumbing Fixtures**

- Analysis: The unit has two bathrooms. The fixtures were replaced in 2000 and are in good condition.
- Recommendation: No corrective action required.

### **Domestic Water Distribution**

- Analysis: The hot water is delivered by a 40 gallon residential grade water heater located in the unit. The water is distributed by a copper pipe system and is in good condition.
- Recommendation: No corrective action required.

## **HVAC**

### **Cooling Generating Systems**

- Analysis: The cooling and heating is provided by a typical residential central heat and air unit. This unit was replaced in 1998.
- Recommendation: No corrective action required.

## **Fire Protection**

### **Sprinklers**

- Analysis: The building does not have a sprinkler system.
- Recommendation: Install a sprinkler system.

## **Electrical**

### **Electrical Service/Distribution**

- Analysis: The electric service is supplied by a pole mounted transformer. There is a 200 amp secondary panel supplying power to the building. The system is in good condition.
- Recommendation: No corrective action is required.

### **Communications and Security**

- Analysis: The building has fire and smoke detectors hard wired to the electrical system.
- Recommendation: No corrective action required.

## **Equipment**

### **Other Equipment**

- Analysis: The unit has a modern kitchen with range, refrigerator/freezer, dishwasher, microwave and garbage disposal. These items are in good condition.
- Recommendation: No corrective action required.

## **Site Preparation**

### **Site Earthwork**

- Analysis: The site is landscaped with grassy lawns, sidewalks and a driveway for POVs. The drainage appears to be in good condition.
- Recommendation: No corrective action required.

## **Major Functional Criteria**

### **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most back of the house spaces are required at the main lodging building on post. Presently these are located in building 36006, and are not included in this building.

- **Family Guest Suite**

Room Size and Configuration: The rooms do not meet size and configuration requirements.

Recommendation: A Renovation Cost estimate is used to indicate a total redo of the building into 1 family suite and 1 extended stay room. This renovation will cost more than 50% of the building's replacement cost.

- **Public Spaces**

Most public spaces are required at the main lodging building on post. Presently these are located in building 36006, and are not included in this building.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>07 Thermal &amp; Moisture Protection</b>	<b>31.59%</b>	<b>\$4,685.77</b>
Built-up Roof: Beyond Useful Life		\$4,685.77
<b>09 Finishes</b>	<b>43.05%</b>	<b>\$6,386.46</b>
Carpet: Beyond Useful Life		\$1,818.05
Vinyl Wall Covering: Beyond expected useful life		\$4,568.41
<b>13 Special Construction</b>	<b>25.37%</b>	<b>\$3,762.91</b>
Fire Sprinklers: Missing or Inadequate		\$3,762.91
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$14,835.00</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$81.59
Force Protection	9.00%	\$1,476.01
General Conditions	10.00%	\$1,483.50
<b>Total Additional Hard Cost</b>		<b>\$3,041.10</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$1,787.61
SIOH Conus	6.50%	\$1,278.14
Design	10.00%	\$1,787.61
08 MYr Inflation Fct	9.93%	\$2,257.04
<b>Total Soft Cost</b>		<b>\$7,110.40</b>
<b>Total Project</b>		<b>\$24,986.50</b>

## Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

### Summary of Project Renovation Cost

CSI	Percent	Amount
<b>07 Thermal &amp; Moisture Protection</b>	<b>5.36%</b>	<b>\$4,502.89</b>
Roof Construction		\$1,233.79
Roof Coverings		\$3,269.10
<b>08 Doors &amp; Windows</b>	<b>5.44%</b>	<b>\$4,574.70</b>
Interior Doors		\$4,574.70
<b>09 Finishes</b>	<b>25.43%</b>	<b>\$21,367.38</b>
Ceiling Finishes		\$3,895.76
Floor Finishes		\$5,595.45
Partitions		\$4,491.77
Wall Finishes		\$7,384.39
<b>10 Specialties</b>	<b>0.16%</b>	<b>\$131.84</b>
Fittings		\$131.84
<b>11 Equipment</b>	<b>7.08%</b>	<b>\$5,950.00</b>
Other Equipment		\$5,950.00
<b>13 Special Construction</b>	<b>9.13%</b>	<b>\$7,675.50</b>
Communications & Security		\$3,455.25
Sprinklers		\$4,220.25
<b>15 Mechanical</b>	<b>22.61%</b>	<b>\$18,997.50</b>
Cooling Generating Systems		\$10,200.00
Domestic Water Dist		\$3,825.00
Plumbing Fixtures		\$4,972.50
<b>16 Electrical</b>	<b>12.90%</b>	<b>\$10,837.50</b>
Electrical Service & Distribution		\$10,837.50
<b>19 FF&amp;E</b>	<b>11.90%</b>	<b>\$10,000.00</b>
Interior FF&E allowance		\$10,000.00
Total Raw Cost	100.00%	\$84,037.31

### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$462.21
Force Protection	9.00%	\$8,361.29
General Conditions	10.00%	\$8,403.73
<b>Total Additional Hard Cost</b>		<b>\$17,227.23</b>

### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$10,126.45
SIOH Conus	6.50%	\$7,240.41
Design	10.00%	\$10,126.45
08 MYr Inflation Fct	9.93%	\$12,785.66
<b>Total Soft Cost</b>		<b>\$40,278.98</b>
<b>Total Project Cost for Renovation</b>		<b>\$141,543.51</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>4.94%</b>	<b>\$5,343.31</b>
Site Earthwork		\$5,343.31
<b>03 Concrete</b>	<b>11.01%</b>	<b>\$11,922.12</b>
Floor Construction		\$6,087.23
Slab on Grade		\$2,430.63
Standard Foundations		\$3,404.25
<b>04 Masonry</b>	<b>15.29%</b>	<b>\$16,553.05</b>
Exterior Walls		\$16,553.05
<b>07 Thermal &amp; Moisture Protection</b>	<b>3.05%</b>	<b>\$3,302.74</b>
Roof Construction		\$1,376.59
Roof Coverings		\$1,926.15
<b>08 Doors &amp; Windows</b>	<b>15.43%</b>	<b>\$16,699.95</b>
Exterior Doors		\$3,684.75
Exterior Windows		\$10,200.00
Interior Doors		\$2,815.20
<b>09 Finishes</b>	<b>14.40%</b>	<b>\$15,590.49</b>
Ceiling Finishes		\$1,989.92
Floor Finishes		\$5,361.02
Partitions		\$5,011.66
Wall Finishes		\$3,227.89
<b>11 Equipment</b>	<b>5.50%</b>	<b>\$5,950.00</b>
Other Equipment		\$5,950.00
<b>13 Special Construction</b>	<b>3.21%</b>	<b>\$3,479.14</b>
Communications & Security		\$1,225.53
Sprinklers		\$2,253.61
<b>15 Mechanical</b>	<b>11.98%</b>	<b>\$12,969.30</b>
Cooling Generating Systems		\$5,446.80
Domestic Water Dist		\$2,550.00
Plumbing Fixtures		\$4,972.50
<b>16 Electrical</b>	<b>5.96%</b>	<b>\$6,453.20</b>
Electrical Service & Distribution		\$6,453.20
<b>19 FF&amp;E</b>	<b>9.24%</b>	<b>\$10,000.00</b>
Interior FF&E allowance		\$10,000.00
Total Raw Cost	100.00%	\$108,263.30

### Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$595.45
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$10,826.33
<b>Total Additional Hard Cost</b>		<b>\$11,421.78</b>

### Soft Cost (Template: Army Lodging New Construction)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$5,984.25
SIOH Conus	6.50%	\$8,168.51
Design	10.00%	\$11,968.51
08 MYr Inflation Fct	9.93%	\$14,478.57
<b>Total Soft Cost</b>		<b>\$40,599.84</b>
<b>Total Project Cost for Replacement</b>		<b>\$160,284.92</b>

**INSERT BUILDING 6827 FLOOR PLAN HERE**





*Building 6829  
John Bell Hood House*

## **Building 6829**

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Building 6829 was constructed in 1961. The 1,520 square foot facility contains a DVQ with a full kitchen. The building is functioning as a family suite for high ranking visitors.

### **Significant Assumptions**

The replacement and renovation cost models are based on 1 family suite and 1 extended stay room.

The renovation uses the existing foot print, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 85% for Ft Hood.

### **Cost Analysis**

Renovation Cost	\$141,545.00
Replacement Cost	\$160,285.00
Renovation to Replacement Cost Ratio	88.31%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 6829 is not recommended.

## **Attributes**

01.Number of Units Constructed	1
02.Number of Units Used	1
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	1
10.Operating as Standard Room	0
11.Operating as Extended Stay	0
12.Operating as Family Suite	0
13.Renovated to Standard	0
14.Renovated to Extended Stay	1
15.Renovated to Family Suite	1
16.Delta renovation	1

## **Condition Analysis/Recommendation**

### **FF&E**

#### **FF&E Allowance**

- Analysis: Guest Room: The hard goods consist of head boards, night stands, dresser in each bedroom, desk w/chair, a couch, davenport, table w/chairs, easy chairs, coffee table, end tables and a TV cabinet with drawers. All are in good condition. The soft goods consist of drapes and blinds on the windows, TV and bed. All are in good condition. These furnishings are high end goods installed in 2000, and are consistent with their use for a general officer DVQ.
- Recommendation: No corrective action required. All the FF&E should be replaced if the structure is renovated. If the structure is not renovated, the FF&E should be replaced no later than 2010.

### **Foundations**

#### **Standard Foundations**

- Analysis: The foundation is a concrete slab on grade beams. No evidence of failure was noted. It is in good condition.
- Recommendation: No corrective action required,

#### **Slab on Grade**

- Analysis: The concrete slab is in good condition.
- Recommendation: No corrective action required.

### **Superstructure**

#### **Floor Construction**

- Analysis: The floor structure is a slab on grade and is in good condition.
- Recommendation: No corrective action required.

#### **Roof Construction**

- Analysis: The roof consists of a wood plywood deck attached to sloped wooden rafters. The roof construction is in good condition.
- Recommendation: No corrective action required.

### **Exterior Enclosure**

#### **Exterior Walls**

- Analysis: The exterior walls are a combination of brick veneer and vinyl siding over wood stud framing. The wall surfaces appear to be in good condition.
- Recommendation: No corrective action required.

#### **Exterior Windows**

- Analysis: The exterior windows are double hung aluminum windows and are in good condition.
- Recommendation: No corrective action required.

#### **Exterior Doors**

- Analysis: The exterior doors are solid wood doors and are in good condition.
- Recommendation: No corrective action required.

## **Roofing**

### **Roof Coverings**

- Analysis: The roof system is mastic and ballast over plywood sheathing and is in fair condition.
- Recommendation: Replace roof.

## **Interior Construction**

### **Partitions**

- Analysis: The partition walls are drywall over wood stud framing and are in good condition.
- Recommendation: No corrective action required.

### **Interior Doors**

- Analysis: The interior doors are solid core wood doors in wood frames. The interior doors are in good condition.
- Recommendation: No corrective action required.

## **Interior Finishes**

### **Wall Finishes**

- Analysis: The wall finishes are a combination of smooth texture drywall and vinyl wall coverings. Both coverings are in fair condition.
- Recommendation: Re coat the painted surfaces.

### **Floor Finishes**

- Analysis: The unit has three year old carpet that is in fair condition. The bathrooms have ceramic tile and are in good condition.
- Recommendation: Replace the carpet.

### **Ceiling Finishes**

- Analysis: The ceilings are painted gypsum board with smooth texture. The paint is in good condition.
- Recommendation: No corrective action required.

## **Plumbing**

### **Plumbing Fixtures**

- Analysis: The unit has two bathrooms. The fixtures were replaced in 2000 and are in good condition.
- Recommendation: No corrective action required.

### **Domestic Water Distribution**

- Analysis: The hot water is delivered by a 40 gallon residential grade water heater located in the unit. The water is distributed by a copper pipe system and it is in good condition.
- Recommendation: No corrective action required.

## **HVAC**

### **Cooling Generating Systems**

- Analysis: The cooling and heating is provided by a typical residential central heat and air unit. This unit was replaced in 1998.
- Recommendation: No corrective action required.

### **Fire Protection**

#### **Sprinklers**

- Analysis: The building does not have a sprinkler system.
- Recommendation: Install a sprinkler system.

### **Electrical**

#### **Electrical Service/Distribution**

- Analysis: The electrical service is supplied by a pole mounted transformer. There is a 200 amp secondary panel supplying power to the building. The system is in good condition.
- Recommendation: No corrective action is required.

#### **Communications and Security**

- Analysis: The building has a fire and smoke detectors hard wired to the electrical system.
- Recommendation: No corrective action required.

### **Equipment**

#### **Other Equipment**

- Analysis: The unit has a modern kitchen with range, refrigerator/freezer, dishwasher, microwave and garbage disposal. These items are in good condition.
- Recommendation: No corrective action required.

### **Site Preparation**

#### **Site Earthwork**

- Analysis: The site is landscaped with grassy lawns, sidewalks and a driveway for POVs. The drainage appears to be in good condition.
- Recommendation: No corrective action required.

## **Major Functional Criteria**

### **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most back of the house spaces are required at the main lodging building on post. Presently these are located in building 36006, and are not included in this building.

- **Family Guest Suite**

Room Size and Configuration: The rooms do not meet size and configuration requirements.

Recommendation: A Renovation Cost estimate is used to indicate a total redo of the building into 1 family suite and 1 extended stay room. This renovation will cost more than 50% of the building's replacement cost.

- **Public Spaces**

Most public spaces are required at the main lodging building on post. Presently these are located in building 36006, and are not included in this building.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>07 Thermal &amp; Moisture Protection</b>	<b>31.59%</b>	<b>\$4,685.77</b>
Built-up Roof: Beyond Useful Life		\$4,685.77
<b>09 Finishes</b>	<b>43.05%</b>	<b>\$6,386.46</b>
Carpet: Beyond Useful Life		\$1,818.05
Vinyl Wall Covering: Beyond expected useful life		\$4,568.41
<b>13 Special Construction</b>	<b>25.37%</b>	<b>\$3,762.91</b>
Fire Sprinklers: Missing or Inadequate		\$3,762.91
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$14,835.00</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$81.59
Force Protection	9.00%	\$1,476.01
General Conditions	10.00%	\$1,483.50
<b>Total Additional Hard Cost</b>		<b>\$3,041.10</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$1,787.61
SIOH Conus	6.50%	\$1,278.14
Design	10.00%	\$1,787.61
08 MYr Inflation Fct	9.93%	\$2,257.04
<b>Total Soft Cost</b>		<b>\$7,110.40</b>
<b>Total Project</b>		<b>\$24,986.50</b>

## Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

### Summary of Project Renovation Cost

CSI	Percent	Amount
<b>07 Thermal &amp; Moisture Protection</b>	<b>5.36%</b>	<b>\$4,502.89</b>
Roof Construction		\$1,233.79
Roof Coverings		\$3,269.10
<b>08 Doors &amp; Windows</b>	<b>5.44%</b>	<b>\$4,574.70</b>
Interior Doors		\$4,574.70
<b>09 Finishes</b>	<b>25.43%</b>	<b>\$21,367.38</b>
Ceiling Finishes		\$3,895.76
Floor Finishes		\$5,595.45
Partitions		\$4,491.77
Wall Finishes		\$7,384.39
<b>10 Specialties</b>	<b>0.16%</b>	<b>\$131.84</b>
Fittings		\$131.84
<b>11 Equipment</b>	<b>7.08%</b>	<b>\$5,950.00</b>
Other Equipment		\$5,950.00
<b>13 Special Construction</b>	<b>9.13%</b>	<b>\$7,675.50</b>
Communications & Security		\$3,455.25
Sprinklers		\$4,220.25
<b>15 Mechanical</b>	<b>22.61%</b>	<b>\$18,997.50</b>
Cooling Generating Systems		\$10,200.00
Domestic Water Dist		\$3,825.00
Plumbing Fixtures		\$4,972.50
<b>16 Electrical</b>	<b>12.90%</b>	<b>\$10,837.50</b>
Electrical Service & Distribution		\$10,837.50
<b>19 FF&amp;E</b>	<b>11.90%</b>	<b>\$10,000.00</b>
Interior FF&E allowance		\$10,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$84,037.31</b>

### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$462.21
Force Protection	9.00%	\$8,361.29
General Conditions	10.00%	\$8,403.73
<b>Total Additional Hard Cost</b>		<b>\$17,227.23</b>

### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$10,126.45
SIOH Conus	6.50%	\$7,240.41
Design	10.00%	\$10,126.45
08 MYr Inflation Fct	9.93%	\$12,785.66
<b>Total Soft Cost</b>		<b>\$40,278.98</b>
<b>Total Project Cost for Renovation</b>		<b>\$141,543.51</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>4.94%</b>	<b>\$5,343.31</b>
Site Earthwork		\$5,343.31
<b>03 Concrete</b>	<b>11.01%</b>	<b>\$11,922.12</b>
Floor Construction		\$6,087.23
Slab on Grade		\$2,430.63
Standard Foundations		\$3,404.25
<b>04 Masonry</b>	<b>15.29%</b>	<b>\$16,553.05</b>
Exterior Walls		\$16,553.05
<b>07 Thermal &amp; Moisture Protection</b>	<b>3.05%</b>	<b>\$3,302.74</b>
Roof Construction		\$1,376.59
Roof Coverings		\$1,926.15
<b>08 Doors &amp; Windows</b>	<b>15.43%</b>	<b>\$16,699.95</b>
Exterior Doors		\$3,684.75
Exterior Windows		\$10,200.00
Interior Doors		\$2,815.20
<b>09 Finishes</b>	<b>14.40%</b>	<b>\$15,590.49</b>
Ceiling Finishes		\$1,989.92
Floor Finishes		\$5,361.02
Partitions		\$5,011.66
Wall Finishes		\$3,227.89
<b>11 Equipment</b>	<b>5.50%</b>	<b>\$5,950.00</b>
Other Equipment		\$5,950.00
<b>13 Special Construction</b>	<b>3.21%</b>	<b>\$3,479.14</b>
Communications & Security		\$1,225.53
Sprinklers		\$2,253.61
<b>15 Mechanical</b>	<b>11.98%</b>	<b>\$12,969.30</b>
Cooling Generating Systems		\$5,446.80
Domestic Water Dist		\$2,550.00
Plumbing Fixtures		\$4,972.50
<b>16 Electrical</b>	<b>5.96%</b>	<b>\$6,453.20</b>
Electrical Service & Distribution		\$6,453.20
<b>19 FF&amp;E</b>	<b>9.24%</b>	<b>\$10,000.00</b>
Interior FF&E allowance		\$10,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$108,263.30</b>

### Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$595.45
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$10,826.33
<b>Total Additional Hard Cost</b>		<b>\$11,421.78</b>

### Soft Cost (Template: Army Lodging New Construction)



<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$5,984.25
SIOH Conus	6.50%	\$8,168.51
Design	10.00%	\$11,968.51
08 MYr Inflation Fct	9.93%	\$14,478.57
<b>Total Soft Cost</b>		<b>\$40,599.84</b>
<b>Total Project Cost for Replacement</b>		<b>\$160,284.92</b>

**INSERT BUILDING 6829 FLOOR PLAN HERE**



*Building 36006  
36006 Wratten Drive*

## **Building 36006**

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Building 36006 was constructed in 1969 and renovated during the summer of 2000. The 145,400 square foot facility contains 274 lodging rooms, operating as 208 standard stay rooms, 62 family suites and 4 DVQs.

### **Significant Assumptions**

The replacement cost model is based on 58 standard stay rooms, 153 extended stay rooms and 62 family suites.

The renovation uses the existing foot print, with the plan reworked to meet current lodging size requirements.

This building is in good condition for both the Condition Assessment and Function Criteria. In this building the Condition Assessment costs include the wellness items and the Renovation Cost includes functional renovations but not Condition Assessment cost due to the limited nature of the renovation. Therefore in the Cost Analysis the sum of the Condition Assessment and Renovation cost is used for the ratio to the Replacement Cost

The replacement cost model includes any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 85% for Ft Hood.

### **Cost Analysis**

Condition Assessment & Renovation Cost	\$3,157,965.00
Replacement Cost	\$25,594,550.00
Condition Assessment & Renovation Cost to Replacement Cost Ratio	12.34%

Because the Sum of the Condition Assessment and Renovation Costs to Replacement Cost Ratio is less than 50%, renovation of Building 36006 could be considered.

## **Attributes**

01.Number of Units Constructed	274
02.Number of Units Used	270
03.Back of House Function	Yes
04.Single Room w/o FullKitchen	222
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	62
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	10
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	208
11.Operating as Extended Stay	0
12.Operating as Family Suite	62
13.Renovated to Standard	58
14.Renovated to Extended Stay	153
15.Renovated to Family Suite	62
16.Delta renovation	3

## **Condition Analysis/Recommendation**

### **FF&E**

#### **FF&E Allowance**

- Analysis: Guest Rooms: The hard goods consist of a head board, night stand, dresser in each bedroom, a couch, easy chair, coffee table, end table, desk and entertainment shelf unit in the living rooms. They are in good condition. The soft goods consists of drapes and blinds on the windows, TV, mattress and box springs and bed coverings. They are in like new condition and should not have to be replaced until 2010.
- Recommendation: No corrective action required however some additional FF&E will be needed due to the specific renovation required to meet Lodging Standards.

### **Foundations**

#### **Standard Foundations**

- Analysis: The foundation is composed of perimeter beam and poured piers on compacted soil. No clear failures can be seen from perimeter. The foundation is in good condition.
- Recommendation: No corrective action required.

#### **Slab on Grade**

- Analysis: The slab rests on grade beams and is in good condition.
- Recommendation: No corrective action required.

### **Superstructure**

#### **Floor Construction**

- Analysis: The structure is slab on grade for the first floor, and poured in place concrete for the second through fifth floor. The floors are in good condition.
- Recommendation: No corrective action required.

#### **Roof Construction**

- Analysis: The roof construction is poured-in-place concrete supported by a concrete pier superstructure. The roof is in good condition.
- Recommendation: No corrective action required.

### **Exterior Enclosure**

#### **Exterior Walls**

- Analysis: The exterior walls are brick veneer over a stud wall with in-fill between concrete piers. The walls are in good condition.
- Recommendation: No corrective action required.

#### **Exterior Windows**

- Analysis: The windows are a commercial grade double glazed lite in aluminum frames. They are in good condition. The windows were installed in the 2000 renovation.

- Recommendation: No corrective action required.

#### **Exterior Doors**

- Analysis: The exterior doors are solid wood or steel commercial grade doors with steel frames and electronic locks. The doors are in good condition.

- Recommendation: No corrective action required.

#### **Roofing**

##### **Roof Coverings**

- Analysis: The roof covering is a mastic and membrane system. It is in good condition.

- Recommendation: No corrective action required.

#### **Interior Construction**

##### **Partitions**

- Analysis: The partitions are drywall over stud framing, covered with vinyl or paint. The walls appear to be in good condition.

- Recommendation: No corrective action required.

##### **Interior Doors**

- Analysis: The interior doors are solid core wood or commercial grade steel. They are in fair condition.

- Recommendation: Replace the interior doors and hardware.

##### **Fittings**

- Analysis: The toilet partitions are located in all common area bathrooms. They are in good condition.

- Recommendation: No corrective action required.

#### **Stairs**

##### **Stair Construction**

- Analysis: The stairs are concrete and steel with steel railing. The stairs are in good condition.

- Recommendation: No corrective action required.

#### **Interior Finishes**

##### **Wall Finishes**

- Analysis: The wall finishes are a combination of smooth textured painted drywall in some back of house and common areas and vinyl wall coverings in guest rooms, offices and lobbies. The vinyl wall coverings are in fair condition.

- Recommendation: Replace the vinyl wall coverings.

##### **Floor Finishes**

- Analysis: The carpet is installed in all guest rooms and offices. The carpet is in fair condition.

- Recommendation: Replace the carpet.

### **Ceiling Finishes**

- Analysis: The ceiling finishes include painted drywall in all guest rooms and a suspended acoustic tile and grid system in all other areas. The ceiling paint is in fair condition.
- Recommendation: Repaint the interior ceilings.

### **Conveying**

#### **Elevators and Lifts**

- Analysis: There are four elevators that were refurbished in 2000 and are in like new condition.
- Recommendation: No corrective action required.

### **Plumbing**

#### **Plumbing Fixtures**

- Analysis: The guest rooms are equipped with a toilet, sink and shower tub. These fixtures were replaced in 2000 and are in like new condition.
- Recommendation: No corrective action required.

#### **Domestic Water Distribution**

- Analysis: The domestic water system was replaced in 2000 and is in good condition. The hot water is supplied by a circulating pumped system heated by gas fired hot water boilers located in the main mechanical room.
- Recommendation: No corrective action required.

### **HVAC**

#### **Cooling Generating Systems**

- Analysis: The back of house and common areas are cooled by a recirculating chilled water system. The guest rooms have packaged PTAC terminal cooling units with heat. The were installed in 2000 and are in good condition.
- Recommendation: No corrective action required.

### **Fire Protection**

#### **Sprinklers**

- Analysis: There is a forced water sprinkler system installed throughout the structure. Smoke and heat detectors that are hard wired are installed in each living unit. The fire protection equipment is new condition.
- Recommendation: No corrective action required.

### **Electrical**

#### **Electrical Service/Distribution**

- Analysis: The electrical power is supplied by a large pad mounted transformer bank supplied by DPW. New panels, branch wiring and electrical fixtures were installed in the 2000 renovation.
- Recommendation: No corrective action required.

### **Communications and Security**

- Analysis: The fire alarm system consists of strobes and bells located on the exterior of the building and in the stairwell areas. This system is in like new condition. There are lighted exit signs in the stairwells that are in good condition.
- Recommendation: No corrective action required.

## **Equipment**

### **Commercial Equipment**

- Analysis: The laundry service is contracted out. No commercial equipment is being used.
- Recommendation: No corrective action required.

### **Other Equipment**

- Analysis: There are no back of house kitchen facilities or commercial laundry in the building. Guest laundries are available and the equipment is in good condition. The guest rooms do not have a required two burner stove to meet current standards.
- Recommendation: Install a minimum two burner stove unit in each guest room.

## **Furnishings**

### **Fixed Furnishings**

- Analysis: The lobby and front desk fixed furnishings are in like new condition.
- Recommendation: No corrective action required.

## **Site Preparation**

### **Site Earthwork**

- Analysis: The site is in good condition. It consists of landscaping with well trimmed trees and well kept lawn areas. The drainage is good with no problems noted.
- Recommendation: No corrective action required.

## **Site Improvements**

### **Parking Lots**

- Analysis: There is a large parking lot at the rear of the building with sufficient parking spaces for guests and visitors. The handicapped parking is sufficient and near a ramped sidewalk for access to the building.
- Recommendation: No corrective action required.

## **Site Electrical Utilities**

### **Site Lighting**

- Analysis: The site lighting is provided by a pole mounted HPS lights. These are in good condition.
- Recommendation: No corrective action required.

## **Major Functional Criteria**

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Breakfast Prep Area / Kitchen

Does not exist.

Renovation Recommendation: Space was added to the northeast wing of the existing building.

Manager's Office

Oversized. Standard is 180 s.f.; existing is 241 s.f.

Renovation Recommendation: Space was moved to the northeast wing with the rest of the administration offices that are recommended.

Administration Offices including Asst. Manager's Office

Oversized. Standard is 800-900 s.f. for the number of units, existing is spread over several spaces and is 1200 s.f.

Renovation Recommendation: Space was consolidated into one large space in the northeast wing.

Administrative Conference Room

Does not exist.

Renovation Recommendation: Space was added to the northeast wing of the existing building.

Receiving Area and Office

Does not exist.

Renovation Recommendation: Space was added to the northeast wing of the existing building.

General Storage and Bulk Storage

Space is undersized and located throughout facility.

Renovation Recommendation: Space was added to the northeast wing of the existing building.

Access Corridors

Does not exist.

Renovation Recommendation: Space was added to the northeast wing of the existing building.

Housekeeping Laundry and Office

In-house laundry does not exist at this post. The building does house a house keeping office on the third floor and several existing housekeeping rooms spread out.

Renovation Recommendation: In-house laundry and the housekeeping office was added to the northeast wing.

Break room and staff toilets.

Does not exist.

Renovation Recommendation: Space was added to the northeast wing of the existing building.

Gear Wash Rooms

Do not exist.

Renovation Recommendation: Space was added to the existing building.

Housekeeping rooms:

Undersized.

Renovation Recommendation: Space was added to the existing building.



- **Extended Stay Guest Room**

The functional criteria deficits are listed, and each noted if it is included or not in the renovation plans or costs.

Extended stay rooms do not have burners.

Renovation Recommendation: Installed 2 burner stove and cabinet in 153 rooms.

- **Family Guest Suite**

The functional criteria deficits are listed, and each noted if it is included or not in the renovation plans or costs.

Existing suites are approximately 630 s.f. in lieu of standard 450.

Renovation Recommendation: Because of the cost to renovate these rooms to the correct square footage, we recommend using the rooms as they are currently configured. The existing rooms are in good condition.

- **Public Spaces**

Bell Cart Station

Does not exist.

Renovation Recommendation: Space is included in the renovation in the lobby area.

Public Corridors

Corridors are only 5' wide, standard is 6' wide.

Renovation Recommendation: Leave corridor width as is. It is felt this deficit is not critical to the intent of the standard and is not included in the Condition Assessment or Renovation cost.

Breakfast Bar / Seating Area

Does not exist.

Renovation Recommendation: Space is included in the renovation of the northeast wing.

Multi Purpose Room

Does not exist.

Renovation Recommendation: Space is included in the renovation of the northeast wing.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>08 Doors &amp; Windows</b>	<b>49.32%</b>	<b>\$760,049.36</b>
Sliding Closet Door: Damaged or Failing		\$222,719.95
Wood Fire Doors: Missing or Inadequate		\$537,329.41
<b>09 Finishes</b>	<b>43.92%</b>	<b>\$676,894.37</b>
Carpet: Beyond Useful Life		\$230,208.32
Interior ceilings: Paint Failing		\$72,968.25
Vinyl Wall Covering: Beyond expected useful life		\$373,717.80
<b>11 Equipment</b>	<b>6.76%</b>	<b>\$104,170.05</b>
Stove: Missing or inadequate		\$104,170.05
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$1,541,114.00</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$8,476.13
Force Protection	9.00%	\$153,333.14
General Conditions	10.00%	\$154,111.40
<b>Total Additional Hard Cost</b>		<b>\$315,920.66</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$185,703.47
SIOH Conus	6.50%	\$132,777.98
Design	10.00%	\$185,703.47
08 MYr Inflation Fct	9.93%	\$234,469.10
<b>Total Soft Cost</b>		<b>\$738,654.02</b>
<b>Total Project</b>		<b>\$2,595,688.68</b>

## Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

### Summary of Project Renovation Cost

CSI	Percent	Amount
<b>07 Thermal &amp; Moisture Protection</b>	<b>6.03%</b>	<b>\$20,144.72</b>
Roof Construction		\$20,144.72
<b>08 Doors &amp; Windows</b>	<b>3.37%</b>	<b>\$11,260.80</b>
Interior Doors		\$11,260.80
<b>09 Finishes</b>	<b>62.81%</b>	<b>\$209,681.56</b>
Ceiling Finishes		\$30,966.72
Floor Finishes		\$61,544.66
Partitions		\$65,914.20
Wall Finishes		\$51,255.99
<b>10 Specialties</b>	<b>1.25%</b>	<b>\$4,162.88</b>
Fittings		\$4,162.88
<b>11 Equipment</b>	<b>5.86%</b>	<b>\$19,579.33</b>
Commercial Equipment		\$12,856.25
Other Equipment		\$6,723.08
<b>12 Furnishings</b>	<b>0.46%</b>	<b>\$1,551.25</b>
Fixed Furnishings		\$1,551.25
<b>13 Special Construction</b>	<b>7.00%</b>	<b>\$23,375.00</b>
Communications & Security		\$14,025.00
Sprinklers		\$9,350.00
<b>15 Mechanical</b>	<b>5.91%</b>	<b>\$19,729.35</b>
Domestic Water Dist		\$1,020.00
Plumbing Fixtures		\$18,709.35
<b>16 Electrical</b>	<b>2.80%</b>	<b>\$9,350.00</b>
Electrical Service & Distribution		\$9,350.00
<b>19 FF&amp;E</b>	<b>4.49%</b>	<b>\$15,000.00</b>
Interior FF&E allowance		\$15,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$333,834.89</b>

### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$1,836.09
Force Protection	9.00%	\$33,214.90
General Conditions	10.00%	\$33,383.49
<b>Total Additional Hard Cost</b>		<b>\$68,434.48</b>

### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$40,226.94
SIOH Conus	6.50%	\$28,762.26
Design	10.00%	\$40,226.94
08 MYr Inflation Fct	9.93%	\$50,790.51
<b>Total Soft Cost</b>		<b>\$160,006.64</b>

<b>Total Project Cost for Renovation</b>	<b>\$562,276.01</b>
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## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>1.84%</b>	<b>\$318,891.89</b>
Parking Lots		\$194,446.00
Site Earthwork		\$124,445.89
<b>03 Concrete</b>	<b>31.33%</b>	<b>\$5,416,773.68</b>
Floor Construction		\$4,529,768.93
Slab on Grade		\$92,135.75
Stair Construction		\$149,940.00
Standard Foundations		\$644,929.00
<b>04 Masonry</b>	<b>3.34%</b>	<b>\$577,836.07</b>
Exterior Walls		\$577,836.07
<b>07 Thermal &amp; Moisture Protection</b>	<b>3.42%</b>	<b>\$590,875.08</b>
Roof Construction		\$364,625.86
Roof Coverings		\$226,249.22
<b>08 Doors &amp; Windows</b>	<b>7.55%</b>	<b>\$1,305,454.65</b>
Exterior Doors		\$36,933.35
Exterior Windows		\$986,000.00
Interior Doors		\$282,521.30
<b>09 Finishes</b>	<b>16.11%</b>	<b>\$2,784,793.83</b>
Ceiling Finishes		\$717,999.64
Floor Finishes		\$946,710.66
Partitions		\$623,082.62
Wall Finishes		\$497,000.92
<b>10 Specialties</b>	<b>0.02%</b>	<b>\$4,162.88</b>
Fittings		\$4,162.88
<b>11 Equipment</b>	<b>2.20%</b>	<b>\$379,979.33</b>
Commercial Equipment		\$12,856.25
Other Equipment		\$367,123.08
<b>12 Furnishings</b>	<b>0.06%</b>	<b>\$9,626.25</b>
Fixed Furnishings		\$9,626.25
<b>13 Special Construction</b>	<b>4.49%</b>	<b>\$776,494.52</b>
Communications & Security		\$349,551.52
Sprinklers		\$426,943.00
<b>14 Conveying Systems</b>	<b>1.06%</b>	<b>\$182,580.00</b>
Elevators and Lifts		\$182,580.00
<b>15 Mechanical</b>	<b>14.39%</b>	<b>\$2,487,340.24</b>
Cooling Generating Systems		\$1,506,554.14
Domestic Water Dist		\$279,480.00
Plumbing Fixtures		\$701,306.10
<b>16 Electrical</b>	<b>6.09%</b>	<b>\$1,052,847.40</b>
Electrical Service & Distribution		\$1,045,384.40
Site Lighting		\$7,463.00
<b>19 FF&amp;E</b>	<b>8.10%</b>	<b>\$1,400,000.00</b>
Interior FF&E allowance		\$1,400,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$17,287,655.81</b>

**Additional Hard Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Spirit	0.50%	\$95,082.11
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$1,728,765.58
<b>Total Additional Hard Cost</b>		<b>\$1,823,847.69</b>

**Soft Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$955,575.17
SIOH Conus	6.50%	\$1,304,360.11
Design	10.00%	\$1,911,150.35
08 MYr Inflation Fct	9.93%	\$2,311,961.10
<b>Total Soft Cost</b>		<b>\$6,483,046.74</b>
<b>Total Project Cost for Replacement</b>		<b>\$25,594,550.24</b>

**INSERT BUILDING 36006 FLOOR PLANS HERE  
(6 EXISTING AND 6 RENOVATION PLANS)**

# Army Lodging Wellness Recommendation

## Appendix

ROOM / SPACE	1-10 Units	11-49 Units	50-149 Units	150-199 Units	200-299 Units	300-399 Units	400-599 Units	600-799 Units	800+	At Main Facility on Post Only	Note
<b>Public Areas</b>											
Exterior Entrance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Vestibule	100	100	150	150	200	200	200	200	200		In Main Lodging facilities square footage included in Lobby
Lobby (includes vestibule at Main Lodging facilities)	300-500	300-500	500-800	500-800	800-1000	800-1000	1,000-1,200	1,000-1,200	1,200-1,500	X	Includes square footage of vestibule at Main Lodging facilities
Front Desk	2 station / 100 s.f.	2 station / 100 s.f.	2 station / 100 s.f.	3 station / 150 s.f.	3 station / 150 s.f.	3 station / 250 s.f.	3 station / 250 s.f.	4 station / 300 s.f.	4 station / 300 s.f.	X	
Bell Cart Station	2 carts / 24 s.f.	2 carts / 24 s.f.	3 carts / 36 s.f.	3 carts / 36 s.f.	4 carts / 48 s.f.	4 carts / 48 s.f.	6 carts / 72 s.f.	6 carts / 72 s.f.	8 carts / 96 s.f.		Not required at facilities w/out interior corridors if building is retained.
Breakfast Bar (Seat/Svc)	550	550	550	550	550	550	550	750	1,000	X	Needed at secondary facility, if it is a remote location. CFSC requirement min 550
Passenger Elevators			1 @ 64 s.f. 50-99 rooms 2 @ 64 s.f. 100-149 rooms	2 @ 64 s.f. each	2 @ 64 s.f. each	2 @ 64 s.f. each	2 @ 64 s.f. each	2 @ 64 s.f. 400-499 rooms 3 @ 64 s.f. 500-599 rooms	3 @ 64 s.f. each		If building is over two stories high
Stairs	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each		
Public Corridors	**	**	**	**	**	**	**	**	**		Minimum 6' wide
Public Telephone Area	2 phones / 12 s.f.	2 phones / 12 s.f.	2 phones / 12 s.f.	2 phones / 12 s.f.	3 phones / 18 s.f.	3 phones / 18 s.f.	4 phones / 24 s.f.	4 phones / 24 s.f.	4 phones / 24 s.f.		House phone in secondary buildings. Pay phones & house phones at Main facility
Vending - Full Service	1 per building / 70 s.f.	1 per building / 70 s.f.	70	70	70-105	105-140	140-210	210-280	280+		1 for every other floor to support up to 200 units / 70 s.f. each
Vending - Ice Only	1 per building / 30 s.f.	1 per building / 30 s.f.	30	30	30-45	45-60	60-90	90-120	120+		1 for every other floor to support up to 200 units / 30 s.f. each
Women - Lobby	100	100	200	200	260	260	315	315	350	X	
Men - Lobby	100	100	200	200	260	260	315	315	350	X	
Multi-Purpose Rm	250	250	250	250	250	250	250	250	250	X	
Study Rooms	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note		1 per 25 extended stay units of 250 s.f. each at posts with schools facilities
Guest Laundries	192	192	192-384	384-576	576-768	768-1152	1152-1536	1536-2112	2112+		CFSC requirement 2w/d for every 75 guest rooms
Gear Wash Rooms	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each		Only at facilities with outdoor training
Guest Bulk Storage	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note		1 unit for every 4 family suites of 25 ea. 40 w/circ.
<b>Guest Rooms</b>											
Guest Room - Standard	300	300	300	300	300	300	300	300			
Guest Room - Ext. Stay	300	300	300	300	300	300	300	300			
Guest Room - Suites	450	450	450	450	450	450	450	450			



ROOM / SPACE	1-10 Units	11-49 Units	50-149 Units	150-199 Units	200-299 Units	300-399 Units	400-599 Units	600-799 Units	800+	At Main Facility on Post Only	Note
<b>Back-of-House Areas</b>											
Manager's Office	180	180	180	180	180	180	180	180	180	X	
Assist. Mgr. Off.	-	-	0 50-99 units 120 100-149 units	120	120	120	120	120	120	X	
Front Office Mgr.	100	100	100	100	100	100	100	100	100	X	
Admin. Offices	2 space / 200-250 s.f.	2 space / 200-250 s.f.	2 spaces / 200-250 s.f.	2 spaces / 200-250 s.f.	5 spaces / 500-600 s.f.	5 spaces / 500-600 s.f.	7 spaces / 800-900 s.f.	7 spaces / 800-900 s.f.	10 spaces / 1,100-1,200 s.f.	X	
Cash Room	50	50	75	75	100	100	125	125	150	X	
Luggage Storage	-	-	75	75	100	100	100	100	100	X	
Admin. Conf. Rm.	250	250	250	250	350	350	350	350	350	X	
Housekeeping Off.	120	120	120	120	120	120	120	120	120	X	
Dirty/Clean Linen Stor.	50	50	50	50	100	100	200	200	400	See Note	At all facilities w/out in-house laundry
In-House Laundry	500	500	500	500	500	500	750	750	900	X	CFSC requirement min 500 s.f
Receiving Office	75	75	75	75	75	75	75	75	75	X	
Maintenance Area	100	100	175	175	250	250	400	400	600	X	
Kitchen Prep Room	150	150	150	150	150	150	150	150	150	X	facility, if it is a remote location.
Break Room		140	210	210	280	280	350	350	420		
Staff Toilet - Men			200	100	100	100	150	150	200		
Staff Toilet - Women		100	100	100	150	150	200	200	250		
Access Corridor	**	**	**	**	**	**	**	**	**		
Receiving	150	150	150	150	150	150	150	150	200	X	
Housekeep. Rms.	128	128-512	512-1280	1280-1792	1792-2560	2560-3456	3456-5120	5120-6912	6912+		128 s.f. for each 15 guest rooms
Service Elevator	80	80	80	80	80	80	80	80	80		
Data/Commo Rm.	100	100	100	100	150	150	150	150	150		
Switch Closets	16 *	16 *	16-48 *	48-64 *	64-96 *	96-128 *	128-144 *	144-256 *	256+ *		1 closet of 16 s.f. for approximately 50 guest rooms
Janitor Closet	50	50	50	50	50	50	50	50	50	X	Only at first floor of Main Lodging facility.
Mechanical Room	*	*	*	*	*	*	*	*	*		
General Stor. Rm.	500	500	500	500	500	500	500	500	500	X	
Bulk Storage Rm.	500	500	500	500	500	500	500	500	500	X	
Electrical Room	140 *	140 *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *		One electrical room to serve no more than 100 rooms.
Elevator Equip.Rm.	84	84	84	84	84	84	84	84	84		
<b>EXTERIOR</b>											
Playground (Outdoor)										X	Play ground required at facilities with family stays.
Grounds Maintenance	400	400	400	400	400	400	400	400	400	X	

\* Mechanical/electrical/equipment Spaces to be determined by contractor based on appropriate code and recommended systems.

\*\* Corridors to be determined based on building layout.